MONITORED NATURAL ATTENUATION IMPLEMENTATION WORK PLAN

FORMER CHEVRON PERTH AMBOY FACILITY
PERTH AMBOY, NEW JERSEY

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TABLE OF CONTENTS

1.0 INTRODUCTION 1

1.1 Facility Location and Operational History 2
1.2 Purpose 2
1.3 Implementation Work Plan Organization 3

2.0 TREATMENT OBJECTIVE AND REGULATORY REQUIREMENT 4

2.1 MNA Corrective Measure Objective 4

3.0 CONCEPTUAL SITE MODEL 5

3.1 Topography 5
3.2 Geology 5
3.3 Hydrogeology 6
3.3.1 Shallow Groundwater 6
3.3.2 Deep Groundwater 6
3.4 Nature and Extent of Contamination 6
3.4.1 LNAPL Impacts 6
3.4.2 Soil Benzene Contamination 7
3.5 Potential Receptors 7
3.5.1 Groundwater 7
3.5.2 Human Health 8

4.0 CURRENT STATE OF MONITORED NATURAL ATTENUATION 9

4.1 Benzene Plume Stability and Concentration Trends 10
4.1.1 Historic Distribution of Benzene in Groundwater 10
4.1.2 Historical Decreases in Contaminant Concentrations Over Time 11
4.2 MNA Parameters: Overview 15
4.3 MNA Parameters: Data Assessment 17
4.3.1 Central Yard 18
4.3.2 Main Yard 19
4.3.3 East Yard 20
4.4 A Review of the Lines of Evidence Approach to Support MNA 22
4.4.1 Occurrence and Effectiveness of MNA of Petroleum Hydrocarbons as Documented in Literature 22
4.4.2 Average Biodegradation Rates for COCs Documented in Numerous Case Studies 23
4.4.3 Discussion of Case Studies where ISCO and Other In-Situ Remedies Have Been Followed by MNA 23
4.4.4 Possible Assessments for Direct Microbial Evidence of In Situ Benzene Biodegradation 24
4.4.5 Estimates of Biodegradation Rates Based on Historical (pre-ISCO) Concentration Data 28

4.5 Summary of Conclusions, MNA Analysis 29

5.0 CORRECTIVE MEASURE TECHNOLOGY SUMMARY 30

5.1 General Overview 30
5.2 Source Control 30
5.3 Institutional Controls 30

6.0 REVIEW OF CURRENT MONITORED NATURAL ATTENUATION PROGRAM 32

6.1 Data Gaps 32
6.2 Performance Monitoring 33
6.3 MNA Corrective Measures Completion 34

7.0 DOCUMENTATION AND APPROVAL PROCESS 36

7.1 Data Management 36
7.2 Documentation Requirements 36

8.0 HEALTH AND SAFETY 38

9.0 PERMITTING 39

9.1 Modified HSWA Permit 39

10.0 PROJECT MANAGEMENT APPROACH 40

11.0 WASTE MANAGEMENT PLAN 41

12.0 PROJECT SCHEDULE 42

13.0 REFERENCES 43

LIST OF TABLES

Table No.	Title
1.	NJDEP Groundwater Quality Standards

LIST OF FIGURES

Figure No.	Title
1.	Site Location on a USGS Map
2.	Aerial Photograph of Former Chevron Perth Amboy Facility
3.	Aerial Photograph of Former Chevron Perth Amboy Facility with AOC and SWMU Boundaries
4.	Sitewide Monitoring Well Location Map
5.	Sitewide Groundwater Contour, Shallow Zone, 10/30/17
6.	Sitewide Groundwater Contour, Deep Zone, 10/30/17
7.	LNAPL Extent, Fourth Quarter 2017
8.	Sitewide 2008 Shallow Monitoring Well Benzene Results
9.	Sitewide 2017Q2-2018 Q1 Shallow Monitoring Well Benzene Results
10.	Sitewide 2008 and 2017Q2–2018Q1 Shallow Monitoring Well Benzene Results

LIST OF APPENDICES

Appendix No.	Title
A.	Groundwater VOCs
B.	Groundwater Geochemistry
C.	Proposed MNA Sampling Plan

LIST OF ACRONYMS

Acronym	Definition / Description
AOC	Area of concern
bgs	Below ground surface
Buckeye	Buckeye Partners L.P.
CAMU	Corrective Action Management Unit
CAP	Corrective Action Plan
CEA	Classification Exception Area
CM	Corrective measure
CMI	Corrective measures implementation (program)
CMS	Corrective Measures Study
COC	Constituent of concern
CSM	Conceptual site model
DMP	Data Management Plan
DO	Dissolved oxygen
EDD	Electronic data deliverable
EIM	Environmental Information Management
EISB	Enhanced in-situ bioremediation
ESS	Ex situ stabilization
Facility	Former Chevron Perth Amboy Facility
FSAP-QAPP	Field Sampling and Analysis Plan/Quality Assurance Project Plan
GWQS	Groundwater quality standard(s)
HSWA	Hazardous and Solid Waste Amendments
ISCO	In situ chemical oxidation
ISS	In situ stabilization
IWP	Implementation work plan
JSA	Job safety analysis
LNAPL	Light nonaqueous phase liquid
LRM	LNAPL remedial measure
µg/L	Microgram(s) per liter
mg/kg	Milligram(s) per kilogram
mg/L/day	Milligram(s) per liter per day

Acronym	Definition / Description
MI	Microbial Insights, Inc.
MNA	Monitored natural attenuation
NCBI	National Center for Biotechnology Information
NFA	No further action
NFB	North Field Basin
NGVD	National Geodetic Vertical Datum
N.J.A.C.	New Jersey Administrative Code
NJDEP	New Jersey Department of Environmental Protection
ORP	Oxidation reduction potential
PAOC	Potential area of concern
Parsons	Parsons Environment and Infrastructure, Inc.
PCOC	Principal contaminant of concern
PDI	Pre-design investigation
PPE	Personal protective equipment
PVC	Polyvinyl chloride
QA/QC	Quality assurance/quality control
qPCR	Quantified polymerase chain reaction
RCRA	Resource Conservation and Recovery Act
SSPL	State Street Parking Lot
SWMU	Solid waste management unit
TEA	Terminal electron acceptor
TRSR	(NJDEP) Technical Requirements for Site Remediation
USEPA	U.S. Environmental Protection Agency
VOC	Volatile organic compound

EXECUTIVE SUMMARY

This implementation work plan (IWP) for monitored natural attenuation (MNA) in groundwater has been prepared for the Former Chevron Perth Amboy Facility (Facility) in Perth Amboy, New Jersey. Although this facility currently operates as a petroleum products terminal, it has historically also functioned as a refinery and petroleum storage facility.

A corrective measures study (CMS) was conducted in 2008 to develop remedial measures to:

- Prevent exposure of humans to groundwater contaminants at concentrations above regulatory standards,
- Remediate contaminant concentrations in groundwater to below applicable regulatory standards, and
- Prevent or minimize migration of contaminant plumes for the potential contaminants of concern.

Significant portions of Facility source material for groundwater contamination have been removed, and the remaining areas are scheduled for treatment by the end of 2020.

The groundwater-specific cleanup goal for the MNA corrective measure component of the CMS is to reduce dissolved-phase benzene within the selected treatment areas to below 1 microgram per liter. Benzene will be the focus of this report because it is representative of other petroleum hydrocarbons and volatile organic carbons (VOC), and its successful reduction is coupled to the reduction of other VOC constituents to below groundwater quality standards. Benzene MNA is well established and is currently active in all three Yards of the Facility. This natural bioattenuation is occurring simultaneously to, and along-side of, other mass-reduction efforts at the Facility.

The purpose of this IWP is to assess currently available MNA data, summarize the status of benzene MNA, demonstrate MNA is reducing site benzene and other constituents as expected, and provide a Facility-wide monitoring plan for MNA parameters.

The focus of this IWP are the three Yards that make up the Facility: the Main Yard, Central Yard and East Yard. In addition to assessing currently-available MNA parameters, this IWP details procedures for making such assessments more detailed and accurate for future MNA reports. It is expected that the U.S. Environmental Protection Agency will issue a CA 550 determination (certification of remedy completion or construction completion) once MNA is demonstrated to be occurring in Facility groundwater.

1.0 INTRODUCTION

Parsons Environment and Infrastructure, Inc. (Parsons) has prepared this Implementation Work Plan (IWP) for the former Chevron Perth Amboy Facility (Facility) located at 1200 State Street, Perth Amboy, New Jersey (**Figure 1).** Monitored natural attenuation (MNA) was proposed as a corrective measure (CM) in the Corrective Measures Study (CMS) Final Report (Chevron 2008a), either as a standalone CM or in combination with other CMs, to achieve the remediation goals for organic contamination in groundwater. This IWP updates and expands on the design, approach and details of the MNA CM, which was approved in the 2013 Hazardous and Solid Waste Amendments (HSWA) Permit Renewal.

MNA is the reliance on natural processes to achieve cleanup criteria. These processes act without human intervention to reduce the mass, toxicity, mobility, volume, and/or concentration of contaminants in soil and/or groundwater. These in-situ processes can be either abiotic or biological and include: biodegradation, dispersion, dilution, sorption, volatilization, chemical or biological stabilization, transformation, or destruction of contaminants. Naturally occurring biological stabilization or destruction of contaminants (also known as intrinsic bioremediation) can be a dominant process in the fate and transport of contaminants. It occurs when naturally occurring microorganisms consume or otherwise degrade contaminants either aerobically or anaerobically, and ultimately transform the contaminants into harmless byproducts such as carbon dioxide and water. MNA requires monitoring procedures to ensure its effectiveness and that cleanup criteria are being met within a reasonable timeframe.

Significant mass reduction efforts have successfully removed material believed to be contributing to dissolved groundwater contamination at the Facility. Only a few areas remain, and these are actively being targeted for mass reduction. A preliminary evaluation of MNA at the Facility indicates that natural attenuation processes are also operating to reduce contaminants. This is expected, as MNA does not wait for bulk-mass removal to begin, but instead functions simultaneously in areas where conditions are conducive to biodegradation.

This IWP governs the tasks performed as part of the design, implementation, and monitoring of the MNA CM at the Facility. The purpose of this IWP is to assess the current status of MNA at this Facility as it pertains to benzene, as a representative of other hydrocarbon constituents. Specifically, the IWP summarizes available benzene-related MNA data and evaluates if MNA is functioning as expected to reduce site contamination, including benzene.

The following regulatory guidelines were considered during preparation of this IWP:

- Resource Conservation and Recovery Act (RCRA) Corrective Action Plan (CAP) Guidance (U.S. Environmental Protection Agency [USEPA] 1994).
- New Jersey Department of Environmental Protection's (NJDEP 2012b) Technical Requirements for Site Remediation (TRSR) (N.J.A.C. [1] 7:26E).

[1] N.J.A.C. – New Jersey Administrative Code

- Administrative Requirements for Site Remediation (N.J.A.C. 7:26C) (NJDEP 2012c).
- New Jersey Department of Environmental Protection's (NJDEP 2018) Ground Water Quality Standards (N.J.A.C. 7:9C).

1.1 Facility Location and Operational History

The Facility lies primarily in the industrial zone of Perth Amboy, New Jersey, occupying approximately 268 acres. It is currently divided into three yards referred to as the Central Yard, East Yard, and Main Yard (**Figure 2**).

Chevron purchased the Facility in 1946 from Barber Asphalt Company, which had owned and operated the Facility since 1911. The Facility operated as a full-scale petroleum refinery from 1946 to 1983, producing liquefied petroleum gas, gasoline, fuel oil, and asphalt. In 1983, Chevron reduced its operations to refining asphalt while also continuing petroleum storage operations. On July 26, 2012, Chevron completed the sale of the Facility to Buckeye Partners, L.P. (Buckeye). Buckeye currently manages and operates the Facility as a petroleum products terminal. A more detailed description of the Facility ownership and its historical operations can be found in the 2008 CMS (Chevron).

1.2 Purpose

This IWP was prepared to address the requirements of the CM implementation (CMI) program, as contained in the HSWA Permit Renewal. The initial 2008 CMS focused on implementing MNA to remediate areas with groundwater benzene concentrations below 100 micrograms per liter (µg/L), and above NJDEP Ground Water Quality Standards (GWQS) (**Table 1**). For locations with higher benzene concentrations (>100 µg/L), more active remedial activities have been, and continue to be, implemented. However, as these active remedial processes achieve their goals of reducing benzene concentrations to below 100 µg/L, MNA will become the primary CM as initially outlined in the 2008 CMS.

Benzene is representative of other petroleum hydrocarbons and volatile organic carbons, and as such will be the primary focus of this report. The successful reduction of benzene is associated with the reduction of other site constituents to below groundwater quality standards. As such, this 2018 IWP assesses available benzene MNA data to determine the status of volatile organic compound (VOC) MNA CMs at the Facility.

Within the Facility, MNA is being conducted within the following solid waste management units (SWMUs) and areas of concern (AOCs) (**Figure 3)**:

- SWMUs: 5, 6, 8, 10, 11B, 15, 16, 17, 18, 19, 20, 21, 22, 24, 26, 29, 34, 35, 39, 40, 41, 42, 43,
- AOCs: 5, 6A, 6B, 8, 9A, 9B, 14, 15, 16A, 16B, 16C, 18, 22, 23, 25, 33, 34, 36, 37, 39, 41, 44, 45, 46, 48, and 49

It should be noted that several areas on the Facility were identified in the 2008 CMS as having exceedances of multiple principal contaminants of concern (PCOCs). The 2008 CMS proposed CMs for each contaminated media based on the individual PCOCs.

Implementation of multiple CMs to address the exceedances of PCOCs in those areas may be necessary. MNA is proposed as the final CM for each area.

1.3 Implementation Work Plan Organization

To facilitate review, the remainder of the plan is organized into the following sections:

- **Section 2** describes the MNA CM objectives and applicable regulatory requirements.
- **Section 3** describes the current conceptual site model (CSM).
- **Section 4** summarizes the current MNA data from the Facility.
- **Section 5** describes the general technical approach for MNA technology.
- **Section 6** describes the field implementation approach and methods.
- **Section 7** describes the reports that will be submitted to regulatory agencies.
- **Section 8** describes the health and safety aspects of the MNA CM.
- **Section 9** describes the permits that are required from various regulatory agencies to continue implementing the MNA CM.
- **Section 10** describes the project management approach for the MNA CM.
- **Section 11** describes the wastes that will be generated during the continued implementation of the MNA CM and management of the waste.
- **Section 12** describes the tentative, continued implementation schedule of the MNA CM for the selected SWMUs and AOCs.
- **Section 13** contains references for documents cited in this report.

2.0 TREATMENT OBJECTIVE AND REGULATORY REQUIREMENT

The following CM objectives were proposed for groundwater in the 2008 CMS for the Facility:

- Prevent exposure of humans to groundwater contaminants at concentrations above regulatory standards,
- Remediate contaminant concentrations in groundwater to below applicable regulatory standards, and
- Prevent or minimize migration of PCOC plumes.

2.1 MNA Corrective Measure Objective

As described in the 2008 CMS, benzene has been determined to be representative of the VOCs for the Facility. As such, benzene will be discussed in this document as an analog for all petroleum hydrocarbon VOCs present in groundwater.

The media-specific cleanup goal for the MNA CM, as established in the CMS, is as follows: Reduce dissolved phase benzene concentrations from less than 100 µg/L in groundwater to below the N.J.A.C 7:9:C GWQS for Class-IIA aquifers (1 µg/L benzene).When all groundwater CMs at the Facility are complete, a Facility-wide classification exception area (CEA) will be established for groundwater with constituents of concern (COCs) exceeding GWQCs (NJDEP 2018).

3.0 CONCEPTUAL SITE MODEL

3.1 Topography

The topography at the Facility has predominantly been shaped by construction activities performed during site development, such as cut and fill grading. The northern, central, and eastern portions of the Facility are relatively flat. Berms (generally 6 to 8 feet high) have been constructed around each petroleum storage tank for spill containment. Sheet piles have been installed to stabilize the fill zones along stretches of the Facility adjacent to Arthur Kill to the east. The elevation of the ground surface at the Facility generally varies from 2 to 25 feet National Geodetic Vertical Datum (NGVD) of 1929 in the Main Yard, 2 to 27 feet NGVD in the East Yard, and 12 to 45 feet NGVD in the Central Yard (**Figure 1**).

3.2 Geology

The general stratigraphy of the Facility consists of six major units overlying the bedrock, including:

- Fill
- Organic clay and peat (Clay Horizon A)
- Glacial till and outwash (till)
- Three members of the Raritan Formation
    - Woodbridge Clay (Clay Horizon B)
    - Farrington Sand (Sand Horizon B)
    - Raritan Fire Clay (Clay Horizon C)

A more detailed description of these units is provided in Section 1.4.1 of the 2008 CMS.

The fill contains varying amounts of sands, silts and clay. In addition, the fill also contains intermittent lenses of flyash, catalyst beads and construction debris usually found in the Main Yard and East Yard of the Facility. A brief description of the fill and Clay Horizon A for the Facility is provided below.

- The thickness of the fill varies from 7 to 19 feet in the Central Yard. Beneath the fill is Clay Horizon A, which varies from 3 to 19 feet thick. Sporadic and discontinuous layers of till have been observed within Clay Horizon A.
- The thickness of the fill varies from 4 to 20 feet in the East Yard. Beneath the fill is Clay Horizon A, which varies from less than 1 to 14 feet thick. Clay Horizon A is absent at times, and the fill is observed overlying the till in the northern portion of East Yard.
- The fill varies from 3 to 15 feet thick in the Main Yard. Beneath the fill layer is a discontinuous Clay Horizon A ranging from 1 to 12 feet thick. The fill overlays till where Clay Horizon A is absent.

3.3 Hydrogeology

3.3.1 Shallow Groundwater

The shallow groundwater at the Facility is mainly observed in the unconfined fill, perched on Clay Horizon A and till. A semi-annual groundwater gauging program is currently in place to monitor groundwater levels at the Facility. **Figure 5** depicts the groundwater elevation contours (data collected on October 30, 2017) for shallow groundwater. The shallow groundwater flow direction is generally to the northeast in the Main Yard, to the northeast in the East Yard, and to the east to southeast in the Central Yard. The hydraulic gradients measured across the Main Yard, East Yard and Central Yard generally ranged from 0.001 to 0.05 foot per foot.

3.3.2 Deep Groundwater

Chevron is currently monitoring the hydrogeology beneath the fill and Clay Horizon A. Deep monitoring wells and piezometers are primarily screened in the till (i.e., first native water bearing zone [deep groundwater] beneath the fill and Clay Horizon A). **Figure 6** depicts the groundwater elevation contours (data collected on October 30, 2017) for deep groundwater. Overall, the groundwater flow direction follows regional projections, east-northeast toward the Woodbridge Creek and the Arthur Kill. The horizontal gradients measured in the Main Yard ranged from 0.0005 to 0.008 foot per foot and in the East Yard ranged from 0.006 to 0.01 foot per foot, and in the Central Yard is from 0.006 to 0.026 foot per foot

3.4 Nature and Extent of Contamination

The sources of organic contamination in soil and groundwater at the Facility are primarily related to tetraethyl lead burial areas, historical waste management practices, and operational and petroleum storage areas.

Currently, the primary origin of groundwater contamination is light nonaqueous phase liquid (LNAPL) and hydrocarbons sorbed to soil. Known areas of LNAPL and impacted soil mass are the target of ongoing CM implementation activity, as most recently reported in the First Quarter 2018 Progress Report for the Hazardous and Solid Waste Amendment Permit (Chevron 2018a).

3.4.1 LNAPL Impacts

LNAPL has been historically observed at 22 areas in the Facility. This LNAPL is weathered petroleum found at relatively shallow depths (less than 10 feet below ground surface [bgs]) and is relatively immobile in the subsurface. LNAPL is typically found within the more permeable lenses and layers that were placed during various periods of filling and are not continuous. Many of the lenses are located below the water table. The extent of LNAPL impacts have been delineated. The most recent (first quarter [1Q] 2018) data are presented on **Figure 7**.

Active LNAPL Recovery Measures (LRMs) are occurring in 11 LNAPL areas. Of the remaining 11 areas, seven are being monitored for LNAPL with no LRMs, and four have

pending requests for no further action (NFA). To date, at least 4,208 gallons of LNAPL have been recovered through LRMs. In general, remaining LNAPL is highly weathered, resulting in a viscous material with limited remaining soluble constituents (Chevron 2008a).

In the Main Yard, measurable LNAPL was detected in nine monitoring wells in the NF2, NF3, and AOC 8-NF6 LNAPL areas, and the SWMU 5/21/43 and AOC 15/23/41 areas during the 1Q 2018 gauging event. In the East Yard, measurable LNAPL was detected in seven monitoring wells in SWMU 42, AOC 31, and PAOC 15 during the 1Q 2018 gauging event. No measurable LNAPL was detected in the Central Yard during 1Q 2018. Post-CM implementation concentration trend monitoring will be conducted to ensure treatments are effective in reducing the remaining contaminant mass.

3.4.2 Soil Benzene Contamination

Results of historical investigations were used to evaluate the extent of soil benzene impacts above 13 milligrams per kilogram (mg/kg). COCs in soil are primarily found in the fill materials at varying depths near waste management areas or operational areas. The fill material is composed primarily of low permeability silts and clays with some discontinuous lenses of sand. Across most of these areas, the fill material is underlain by a naturally-occurring layer of low permeability clay (Clay Horizon A) or a glacial till composed of silts and clay with some sand lenses (Chevron 2008a). Based on these results, the depth of benzene contamination exceeding 13 mg/kg generally ranges from 1.5 to 14.5 feet bgs in the Main Yard, 1.5 to 12 feet bgs in the East Yard, and 1 to 16 feet bgs in the Central Yard.

The highest historical concentrations of benzene in soil in the Main Yard were clustered in three areas in AOCs 23/41/SWMU 18, AOC 15/SWMUs 16/40, and AOC 8/NF 6. In the East Yard, the highest benzene in soil concentrations are clustered in four areas: AOC 31, AOC 37, AOC 14/SWMU 26, and SWMU 8. In the Central Yard, benzene impacted soil was detected in AOC 22 and AOC 36 near the former Shops Building and ladder track.

3.5 Potential Receptors

Potential receptors of benzene-impacted groundwater from the Facility are discussed in the sections below. As stated above, benzene will be the focus of this discussion as it is an analog for all petroleum hydrocarbons and VOCs at the facility.

3.5.1 Groundwater

In New Jersey, Class II groundwater is considered suitable for the provision of potable water with conventional water supply treatment. NJDEP classified groundwater in the Perth Amboy area as Class IIA, a potable water supply. However, groundwater quality in the uppermost water-bearing unit is degraded by various industrial activities and stormwater runoff from streets in this urban area. Near the Facility, the Farrington Aquifer outcrops along Woodbridge Creek. Historical pumping of the Farrington Aquifer caused salt water intrusion as the saline waters of Woodbridge Creek were drawn into the recharge area of the Farrington Aquifer. As documented in N.J.A.C. 7:9, Subchapter 6,

which covers GWQS, the Farrington Aquifer along the banks of Woodbridge Creek at and near the Facility is designated as Class IIIB groundwater, which is not suitable for conversion to potable uses. Groundwater is not used as a source of water supply within at least two miles of the Facility, because historical pumping from the Farrington Sand has resulted in nearby salt water encroachment.

The northern portion of Main Yard consists of tidal salt marsh wetlands (also known as North Field Basin [NFB] Wetlands). The surface water bodies, including Arthur Kill and Woodbridge Creek, are located along the northern and eastern property boundaries. Tidally influenced groundwater level fluctuations and salt water intrusion into the shallow water-bearing zone have been observed and documented in the areas near Woodbridge Creek. Data from wells in the NFB area have shown a tidally related groundwater elevation fluctuation of up to 1.5 feet. In contrast, the extent of tidal influence has not been fully clarified for monitoring wells in the East Yard Basin area. This potential tidal influence in the East Yard may be subsequently affected by bulkheads that have been placed along the Arthur Kill (Chevron 2008a).

3.5.2 Human Health

Several structures within the Facility are occupied. A vapor intrusion evaluation was conducted for the on-site structures, and it was concluded that the vapor intrusion exposure pathway does not pose a significant risk to potential receptors at the on-site structures (Chevron 2008a; Chevron 2016).

4.0 CURRENT STATE OF MONITORED NATURAL ATTENUATION

MNA is the reliance on natural biological and non-biological processes to achieve groundwater cleanup within a reasonable timeframe. These processes include biodegradation, dispersion, dilution, adsorption, volatilization, and chemical and biological stabilization. The goal of MNA is to reduce the mass, volume, mobility, toxicity, and/or concentration of groundwater contaminants. Naturally occurring stabilization or destruction of contaminants can be a dominant process governing the fate and transport of contaminants. Biological natural attenuation occurs when indigenous microorganisms degrade (consume) contaminants either aerobically (in the presence of oxygen) or anaerobically (in the absence of oxygen). Biodegradation, also called bioattenuation, can result in partial breakdown daughter products. Contaminants can also be fully mineralized to carbon dioxide.

The three, typically-accepted lines of evidence for assessing the efficiency of natural attenuation are:

1. Plume stabilization and/or loss of contaminant mass over time
2. Groundwater chemistry data showing that geochemical conditions are suitable for natural attenuation and the rate at which natural attenuation processes are active
3. Data demonstrating the occurrence of a natural attenuation process, typically used to demonstrate that biodegradation is occurring (USEPA 1999). These data can take many forms, including indirect geochemical data or direct biological assessments. Indirect biogeochemical data that are used to monitor bioattenuation can include evidence of depletion of electron acceptors and donors, increased metabolic byproduct concentrations, decreased parent compound concentrations, and increased daughter compound concentrations (Wiedemeier, et al. 1996; Wiedemeier, et al. 1999).

MNA does not wait for source removal to be completed, but instead functions simultaneously in areas where conditions allow.

MNA was evaluated for effectiveness, implementability, and cost in the 2008 Corrective Measures Study (Chevron). This evaluation determined that:

1. **Effectiveness** – The effectiveness of MNA depends on site conditions such as remaining contaminant mass, pH, temperature, microbial activity, and oxidation reduction potential (ORP). Data collected from the Facility prior to the 2008 CMS indicated that MNA would be effective for organic contaminants within a reasonable timeframe for the plume area outside source areas of contamination.
2. **Implementability** – Implementation of MNA as a CM entails a comprehensive groundwater monitoring program. A monitoring well network already exists at the Site and is being periodically monitored for MNA parameters. Therefore, MNA is easy to implement and monitor at the Facility.

3. **Cost** – The costs to implement and maintain an MNA monitoring program are low to moderate, depending on the number of wells sampled, the frequency of sampling, and the duration of sampling. MNA was being proposed as a follow-up to other more aggressive CMs and in areas of the Site with groundwater exceedances outside the remaining areas of contamination.

4.1 Benzene Plume Stability and Concentration Trends

As stated above, the first line of evidence for assessing the efficiency of natural attenuation is to monitor plume stabilization and/or loss of contaminant mass over time. The most complete historical reference available to facilitate this comparison is data from the time of the 2008 CMS.

At this Facility, the goal of the MNA CM is to reduce dissolved phase benzene concentrations in groundwater within the selected treatment areas to below 1 µg/L. This goal takes into account that benzene is acting as a representative of petroleum hydrocarbons and VOCs, and as such, benzene reduction will parallel the reduction of other constituents to groundwater quality standards.

4.1.1 *Historic Distribution of Benzene in Groundwater*

Multiple comingled benzene plumes were identified in each of the three Yards in the 2008 CMS (**Figure 8**). The plumes were generally associated with a known or suspected mass of benzene, either in soil or from LNAPL. The highest concentrations of benzene were generally found near the soil or LNAPL source, with decreasing concentrations extending downgradient (Chevron 2008a). Historic benzene data is presented in **Appendix A**.

Since 2013, the implementation of CMs in all three Yards has effectively reduced both soil and LNAPL sources in several areas, as discussed in detail below. Post-implementation dissolved benzene concentrations indicate that mass removal is complete in some areas, and dissolved benzene concentrations have decreased accordingly (**Figure 9**). When the 2008 footprint is compared to current data, it is apparent that the total amount of benzene present at the Facility has been significantly reduced (**Figure 10**). It should be noted that the contemporary data presented in **Figures 9** and **10** are the highest concentrations reported during the 2017Q2 to 2018Q1 period. As such, the resulting maps represent the most conservative interpretation of current plume conditions.

Areas with concentrations of benzene below 100 µg/L but above the GWQS will continue to be remediated through MNA. The total footprint of dissolved benzene between 100 µg/L and GWQS of 1 µg/L has increased from 2008 until 2018. Several plumes that were not identified at the time of the 2008 CMS have now been identified and are represented on **Figures 9** and **10**. Additionally, the reduction of elevated benzene concentrations from above 100 µg/L in 2008 to between 100 and 1 µg/L in 2017-2018 is included in the apparent increased extent of area requiring MNA.

Once source removal/treatment is completed, the decrease in areas of high concentrations will result in an overall increase in the footprint of low concentrations (1 to 100 µg/L) of benzene. Over time, however, the footprint of these low concentrations will subsequently decrease. This is because biodegradation of contaminants, such as hydrocarbons, occurs primarily in the lower-concentration zones of a plume.

There are multiple reasons for bioattenuation to be more active in zones peripheral to a plume core. First, more microbes are adapted to survive in, and then degrade, lower concentrations of a hydrocarbon than higher concentrations. In addition, areas of lower hydrocarbon concentration are often associated with less-reduced geochemical conditions, as seen at the Facility and discussed above. As such, the actual rate of biodegradation is commonly most rapid in areas of lower hydrocarbon concentration. Although the below-proposed use of in-situ microcosms would confirm this, all signs suggest that this fingerprint of microbial MNA is occurring at this Facility. Therefore, it is anticipated that MNA is a process that will continue to reduce the footprint of both the higher and lower benzene concentrations at the Facility.

4.1.2 Historical Decreases in Contaminant Concentrations Over Time

Dissolved benzene concentrations in Facility groundwater exceeding 100 µg/L generally extend from areas of petroleum hydrocarbon impacted soil or LNAPL. Once this zone has been treated through active remediation, concentrations of benzene in groundwater can follow the MNA patterns discussed above.

Mass removal continues at the Facility and is scheduled to be completed in 2020. Because CM implementation is in progress and will be continuing for an additional two years, post-remediation groundwater trends cannot be developed at this time. As CM implementation progresses, construction completion reports will be submitted detailing the remediation completed and the post-remediation groundwater trends. Once all CM implementation is complete, trends for evaluation of MNA will be included in the MNA annual reports.

As stated above, **Figures 9** and **10** represent the most conservative interpretation of current plume conditions, since they use the highest concentrations reported during the 2017Q2 to 2018Q1 period.

Footprint Size of Dissolved Benzene Concentrations (square feet)

CMI Area: 2008 (>100 µg/L)	CMI Area: 2017-2018 (>100 µg/L)	Reduction in CMI Area (>100 µg/L)
289,744	215,042	74,702

In the last 10 years, over 74,700 square feet of the Facility have seen a reduction in benzene concentration from above the CMI action level (100 µg/L) to below this target concentration. Active CM activities will continue in areas where concentrations remain above 100 µg/L.

Central Yard

The Central Yard of the Facility has shown a complete reduction of benzene concentrations above 100 µg/L, in comparison to 2008 (**Figure 10** and **Appendix A**). Several mass removal events have contributed to the reduction in total contaminant mass in the Central Yard. Details of each of these remedial actions are, or will be, included in the construction completion reports for the associated AOC or SWMU.

Figure 10 also illustrates that the footprint of concentrations below 100 µg/L has been substantially reduced in the Central Yard benzene plumes. Small areas remain where MNA will continue to reduce benzene concentrations. Finally, **Figure 10** demonstrates that the footprint of concentrations above 10 µg/L has been substantially reduced in the benzene plumes. Remaining benzene is found in small areas where concentrations do not exceed 10 µg/L.

In summary, the footprint of impacted groundwater is significantly reduced in the northwest plume. As such, the benzene plume in the Central Yard of this Facility is not only stable but shrinking in both benzene mass and footprint size.

It should be noted that:

- In the northwestern plume, an excavation to remove LNAPL and hydrocarbon impacted soil from AOC 25 occurred in September 2016. Concentrations prior to excavation were consistently above CMI action limits and have consistently been less than 10 µg/L since the excavation.
- In the southern plume, near AOC 36 and SWMU 34, enhanced in-situ bioremediation (EISB) was conducted until April 3, 2014. Benzene concentrations in the area have been reduced from greater than 100 µg/L measured in MW-102 in 2008 to less than 100 µg/L in all area wells in 2017-2018.
- In the State Street Parking Lot (SSPL), in SWMUs 11a and 11b, benzene impacted groundwater was discovered after the 2008 CMS. Data from well TP2-018 indicate that benzene concentrations in this area exceeded 1,000 µg/L in 2009. A remedial excavation occurred in SWMU 11a in September 2015, and ISCO soil mixing was completed in SWMU 11b in February 2017. Data from post-CM implementation monitoring wells MW-438, MW-431R and MW-509 indicate that benzene concentrations have been reduced to less than 100 µg/L in the SSPL.

Main Yard

In 2008, the Main Yard was characterized by several distinct areas where benzene concentrations were elevated (**Figures 8** and **10**). The “Main Yard Plume” includes the large commingled plume, which extends from SWMU 5/21/43 in the northwest to AOC 15/8 in the southeast. Other benzene plumes within the Main Yard include those near AOCs 5 and 44 (extending to the northwestern corner of the Facility), AOC 33 near the eastern Facility boundary, and AOC 50 at the Truck Loading Rack east of the Main Yard.

A variety of CM implementation actions have been completed in the Main Yard to date, and additional CM implementations are scheduled to continue into the year 2020. Some

benzene impacted soil has been placed in the CAMU either due to benzene-impacted soil being collocated with lead or benzo(a)pyrene impacted soil, or in lieu of ISCO injections when the benzene source zone was identified as a limited volume of soil, and thus excavation was deemed more efficient than ISCO injections. The following CM implementation actions have been completed in the Main Yard:

- In the northwest corner of the Facility, near AOC 5 and SWMUs 27/29/30/38/39, soil was excavated for ISS/ESS in 2015 and 2016. An area of elevated benzene concentrations (>100 µg/L) in groundwater remains near MW-404R and MW-406. This area was not identified in 2008.
- In AOC 9A, an excavation to address benzene in soil was completed in December 2017. The upgradient extent of this plume has been defined as extending farther to the south than in 2008, with the installation of MW-376 and MW-379. Concentrations of benzene in the downgradient extent of the plume have decreased from >100 µg/L in MW-266 in 2008 to less than 10 µg/L in 2017-2018.
- In SWMU 19 an excavation was completed in November 2016 to address lead and benzo(a)pyrene. In 2008, benzene concentrations in SWMU 19 groundwater were above the GWQS of 1 µg/L; however, concentrations in this area have decreased, and an NFA justification for SWMU 19 benzene in groundwater was approved by NJDEP on December 16, 2016.
- In AOC 44, ISCO injections were completed in 2014. The downgradient edges of this plume have reduced since 2008. However, an area of high benzene concentrations was detected upgradient of the 2008 plume boundary (**Figure 10**). An additional round of ISCO injections is planned to address the remainder of the benzene impacted soil and groundwater in this area.
- In AOC 50, a remedial excavation was completed to address lead and benzene in soil in September 2017. Concentrations of benzene remain elevated in MW-521, and post-remediation trends will continue to be monitored in this area.
- In the eastern Main Yard Plume area, in SWMUs 6/7/16/40, in January 2016 excavation was completed to address benzo(a)pyrene and lead in soil. Benzene in groundwater concentrations have been reduced from >1,000 µg/L in MW-125 and MW-243, to <1000 µg/L in MW-125 and <10 µg/L in MW-243R. Additional ISCO CM implementation actions are planned in this area.
- In SWMU 20, an ESS excavation to address lead in soil was completed in August 2016. Benzene in groundwater concentrations were reduced from >100 µg/L in MW-266 in 2008 to <10 µg/L in 2017-2018.

Details of each of these remedial actions are, or will be, included in the Construction Completion Reports for the appropriate AOC or SWMU, and will be submitted under a separate cover. Currently, only three of these areas have groundwater concentrations over 1,000 µg/L, and nine areas have benzene concentrations above the CMI action limit of 100 µg/L (**Appendix B**, **Figures 9** and **10**). These areas are scheduled for additional CMI activities in 2019 and 2020. Additionally, the area near SWMU 43 and to the west near AOC 33 have shown reductions of benzene concentrations to below GWQS of 1 µg/L

(**Figure 10**). A comparison of benzene concentrations and locations between 2008 and 2018 demonstrates that the plumes in this Yard are stable or shrinking into themselves.

East Yard

In 2008, the East Yard was characterized by several plumes extending downgradient from six source areas. The following CMI activities have been conducted since 2008:

- SWMU 8, in the northeastern corner of the East Yard, received two rounds of ISCO injections in 2013. ESS for lead was completed in 2016. In 2008, benzene concentrations in MW-132 were greater than 100 µg/L. Concentrations in MW-132R had been reduced to less than 10 µg/L in 2017-2018, and the SWMU 8 benzene plume extent is reduced as compared to 2008.
- Two rounds of ISCO injections were completed in SWMU 10 in 2015, and ISS/ESS for lead was completed in June 2016. Concentrations of benzene in MW-131 were greater than 100 µg/L in 2008 and below 100 µg/L in MW-131R in 2017-2018.
- ESS addressed lead concentrations in soil in SWMU 42. Benzene concentrations in the ESS CM area (MW-227) were greater than 100 µg/L in 2008 and have been reduced to less than 10 µg/L in 2018.
- Soils with elevated concentrations of benzene in AOCs 14 and 26 were excavated in November and December 2017. Dissolved benzene concentrations in this area have decreased to less than 10 µg/L since 2008.
- AOC 31 was the site of electrical resistance heating system operations until 2014. ISCO injections in this area began in 2017 and are ongoing in 2018. The footprint of concentrations exceeding 100 µg/L has been reduced, and CM activities will continue in this area. Additionally, the downgradient portion of the plume has decreased to less that the GWQS of 1 µg/L along the northern property boundary.
- AOC 38 and AOC 39 were not identified as having elevated benzene in groundwater in 2008. However, these areas were treated for benzene in soil in October 2017 and January 2018, respectively. Benzene concentrations in MW-400 and MW-401 will be monitored to determine whether additional CM actions are warranted.
- AOC 46 was treated via ISCO injection in November and December 2015, concentrations of benzene in this area are less than 100 µg/L in 2017-2018.

Details of each of these remedial actions are or will be included in the construction completion reports for the appropriate AOC or SWMU and will be submitted under a separate cover. In 2008, the AOC 31 portion of the East Yard contained two areas of very high (above 1000 µg/L) benzene concentrations (**Appendix B**, **Figures 8** and **10**). By 2018, the areas identified in 2008 have been reduced in size (**Figure 10**). ISCO injections are in progress in AOC 31 and will continue until CMI action levels are reached.

As the above CM remedies were being implemented, areas of lower concentrations were simultaneously being reduced through MNA processes. As a result, when compared to 2008, current plume footprints indicate that many areas of the plumes are stable or shrinking.

4.2 MNA Parameters: Overview

As stated above, in addition to monitoring plume stabilization and/or loss of contaminant mass over time, equally important lines of evidence for assessing the efficiency of natural attenuation involve MNA geochemical parameters. To evaluate the potential for MNA, MNA-related geochemical data from approximately 320 monitoring wells located in the Main Yard, East Yard and Central Yard of the Site were analyzed for some combination of groundwater geochemical (MNA) parameters between 2014 and 2018 (**Appendices A** and **B**). These data were analyzed to evaluate the potential for MNA to effectively reduce organic contamination in the groundwater, and to determine if MNA appears to be occurring.

MNA parameters such as total alkalinity, pH, ORP, sulfate, sulfide, dissolved (ferrous) iron, total iron, dissolved oxygen (DO), and nitrates provide useful, if indirect, information on the biodegradation potential of the contaminated media. This process has been summarized in many publications including, but not limited to: Talley (2006), Wiedemeier et al. (1999), and Young and Mulligan (2003).

There are several field-tested MNA parameters. For example, microbes have minimum and maximum tolerances and optimum levels for both temperature and pH. The ORP value is a measure of electrical current in groundwater, which reflects how oxygenated or reduced an environment is. The ORP value will provide information about which form of microbial metabolism will likely dominate the area being tested.

An increase in alkalinity, which generally reflects the amount of bicarbonate in groundwater, is an indication of the biodegradation of organics. As such, alkalinity can provide indirect insights into whether site contaminants are being fully mineralized, and thus can allow for qualitative comparisons between locations or timepoints.

The DO value and groundwater concentrations of nitrate, total iron, ferrous iron, sulfate, sulfide, and methane are metrics used to indirectly determine if biological degradation is occurring and under what metabolic process. Every microbe contains a chemical that is referred to as the terminal electron acceptor (TEA). As this TEA scavenges and binds up free electrons, it is transformed from an oxidized form into a reduced form. Depending on the type of TEA used, different amounts of energy are ultimately produced for the microbe. However, microbes will metabolize (consume) organic material (including hydrocarbons) in a way that will allow for the greatest resulting energy generation to occur under site conditions. As such, there is a sequential preference for the form of metabolism to be used.

If oxygen is present, aerobic bacteria will conduct aerobic metabolism, generating the most energy (per unit of organic material) of the metabolic processes. If oxygen is not present, or has been consumed, then the microbial population will transition to utilize other

electron acceptors, beginning with nitrate. Once nitrate concentrations become depleted, iron-reducing bacteria will dominate the population. As ferric iron concentrations become low, this community will transition to one dominated by sulfate-reducing bacteria, if sulfate is present. If sulfate becomes depleted, the microbial community will transition to the lowest-energy-producing metabolism of methanogenesis.

Summary of the Sequential Utilization of TEAs in an Environment

Metabolic Degradation Process Name	TEA Utilized	Product of the Reduction of the TEA	Type of Microbe Performing This Metabolism
Aerobic	Oxygen	Water	Aerobes
Nitrate Reduction	Nitrate	Nitrite	Nitrate Reducers
Iron Reduction	Ferric Iron [Fe (III)]	Ferrous Iron [Fe (II)]	Iron Reducers
Sulfate Reduction	Sulfate	Sulfide	Sulfate Reducing Bacteria
Methanogenesis	Carbon Dioxide	Methane	Methanogens

Because of this sequential utilization of TEAs, the resulting groundwater geochemistry can develop a “fingerprint” of biological natural attenuation. Assuming that nutrients (including appropriate TEAs) are not being replenished in the environment fast enough to overcome utilization rates, the above-described process of transitioning from one dominant metabolism to another will occur. Eventually, the environment will reach an equilibrium in which higher concentrations of organic matter will corelate with more reduced environmental conditions. Thus, in the case of a hydrocarbon plume (for example), the core of the plume will be more reduced relative to the periphery of the plume.

The most impacted core of a hydrocarbon plume may be under the influence of sulfate-reducing to methanogenic conditions. Moving away from this core toward the periphery where hydrocarbon concentrations are lower, conditions often become dominated by iron-reducing conditions, nitrate-reducing conditions, and if oxygen is present at the plume periphery aerobic conditions. This classic fingerprint is a hallmark of biological contaminant degradation.

It is worth noting that, although an overall microbial community can be dominated by a metabolic process, multiple TEA processes can occur simultaneously in a location. Additionally, micro-environments as well as stratified TEA processes with depth can exist. Finally, TEA processes can be dynamic. As such, this classic fingerprint can sometimes be less clear in some locations in comparison to others.

It is important to remember that these TEA processes are at work on both naturally-occurring organic matter (such as decomposing plant material) and organic contaminants (such as hydrocarbons). This underscores the importance of trying to find upgradient or background groundwater to compare against the geochemical parameters found within

the core and periphery of a contaminant plume. However, this ideal situation may not be available at all locations, and less-ideal monitoring wells may have to be accepted as a representation of background conditions. Additionally, the microbial degradation of non-contaminant material possibly found in the subsurface of a site is important to remember because byproducts such as methane can be generated from this innocuous material. Methane is a gas, and as such, it travels easily from one location to another via preferential pathways. These include subsurface features and along monitoring well casings that may have perforated a methanogenic pocket. Thus, methane generated in one location can easily travel, and be detected, in a very different location. Together, these variables underscore the importance of looking at multiple lines of evidence when evaluating MNA.

One final quality of MNA that makes it particularly beneficial is that it will occur as long as the above-described environmental conditions will allow it to. Thus, MNA is often occurring in less impacted regions of a location that is also undergoing bulk source material removal.

4.3 MNA Parameters: Data Assessment

For organizational purposes, this Facility is subdivided into three main areas: the Central Yard, Main Yard, and East Yard. The varying historical uses, geography, and geology of each of these three subdivisions makes it appropriate to look at MNA within each subdivision individually.

All data discussed were reported for 2014 through 2017, unless otherwise noted. Regarding benzene concentrations, the discussion below follows the trend established by Facility maps: areas of higher benzene concentration will be defined as those exceeding 100 µg/L, and areas of lower concentration will be defined as those having benzene concentrations ranging from 1 through 100 µg/L. This is based on criteria used on plume maps for historical quarterly and other reports. However, any exceptions will be noted. In addition to considering historical benzene concentration data, wells chosen for discussion also needed to have enough recent MNA geochemistry data for a proper assessment to occur.

For the purposes of this report, monitoring wells described as “background” are those where benzene concentrations have typically been detected at concentrations below 1 µg/L and have available and recent MNA data for a proper assessment to be made. At a Facility such as this, it is common to have no available monitoring wells that are non-detect for COCs. It is also not unusual to have limited upgradient wells available for assessment, due to property lines and groundwater flow patterns complicated by above-ground and subsurface structures. In these situations, monitoring wells that consistently have low COC concentrations can serve as baseline wells, providing the best available view of conditions away from the bulk of the plume.

For all three Facility yards, groundwater benzene and other VOC data are provided in **Appendix A**. Groundwater geochemistry, including the MNA parameter data discussed below, is provided in **Appendix B**.

Finally, when a monitoring well is introduced in the discussion below, its associated (or nearby) AOC or SWMU will be listed in parenthesis. This is to help facilitate comparisons in other Facility documents.

4.3.1 Central Yard

The Central Yard is the most inland of the three yards, having no waterfront access. Background conditions in the Central Yard are dominated by nitrate reducing to iron-reducing conditions, as demonstrated in MW-416 (Former PAOC 82) and MW-417 (Former PAOC 82) (**Appendix B**). In these wells, nitrate was continuously below 40 µg/L, indicating that this nutrient and TEA were consistently depleted**.** However, ferrous iron concentrations were robust, ranging from 108,000 and 1,120,000 µg/L in 2016 and 2017. Sulfate concentrations were also elevated in these two monitoring wells, ranging from 189,00 to 287,000 µg/L in 2016 and 2017. Available ORP and DO values also remained elevated in these two background wells. Together, these data suggest that these two wells were strongly under the influence of iron-reducing conditions.

Concentrations of benzene in all Central Yard monitoring wells were less than 100 µg/L in 2017 and 1Q 2018 (**Appendix A**). However, several monitoring wells had lower benzene concentrations (**Figure 9**). Monitoring wells MW-167, MW-168, and MW-169R are near AOC 36, in the southern tip of the Central Yard, downgradient of the southern Central Yard plume. MW-169R has demonstrated benzene concentrations below the GWQS for several years. MW-167 and MW-168 have been non-detect for benzene since at least 2010. When compared with background wells, nitrate concentrations are depleted in MW-167 and MW-169R, nitrate concentrations were continuously elevated in MW-168. Ferrous iron concentrations were reduced compared to those from background wells, ranging from depleted to 16,700 µg/L in 2016 to 2017. Sulfate levels were also generally reduced compared to background, ranging from 6,300 to 79,600 µg/L in 2016 to 2017. This suggests that these monitoring wells are under more reduced conditions than background wells, likely under the influence of a mix of iron-reducing to possibly light sulfate-reducing conditions. Available ORP values support that these periphery wells are more reduced than background Central Yard wells.

These MNA parameters are similar to those detected in MW-216 and MW-217, both of which are in the most concentrated area of that particular benzene plume in AOC 36. Benzene concentrations in these two monitoring wells have ranged from 29 to 46 µg/L over the past three years (**Appendix B**). This suggests that active bioattenuation of benzene has been working inwards from the periphery of this plume and has become active in the areas of highest benzene concentrations.

The second major area of interest within the Central Yard is northwest of the area described above. Only one monitoring well, MW-360 (near Former PAOC 74), has available data for assessing MNA in the periphery of this area of low benzene concentrations (**Appendix B**). As with the above-described periphery monitoring wells, nitrate is generally depleted. Sulfate concentrations were reported to be between 38,700 and 54,000 µg/L, which are consistently higher than concentrations found even in background wells. Ferrous iron was substantially reduced compared to background

concentrations. In fact, ferrous iron concentrations were mostly depleted (except for one data point in 2017). This suggests that this region of the Central Yard is under primarily nitrate-reducing conditions, following the expected pattern for hydrocarbon MNA, where the area around the contaminant is more reduced than background areas. The cause of the consistently-elevated sulfate concentrations in MW-360 is unclear.

It should be noted that in the 2008 CMS, it was reported that Chevron had already evaluated and implemented MNA as a remedial approach for AOC 36, a chlorinated plume in the southern portion of the Central Yard that emanated from the southwestern portion of the former Shops building. MNA parameters analyzed during this evaluation indicated that daughter products of chlorinated solvents trichloroethane and perchloroethylene were detected in the area groundwater indicating that anaerobic biological reactions were occurring. Details regarding AOC 36, the bioremediation of chlorinated constituents, past EISB efforts, current site conditions, and upcoming EISB efforts are detailed in an AOC 36-specific report (Chevron 2018b).

4.3.2 Main Yard

The Main Yard is like the Central Yard in that it contains areas of both low and high concentrations of benzene (defined above). In contrast, however, a greater portion of the Main Yard is impacted with benzene than is the Central Yard. The northern end of the Main Yard is also bounded by the Woodbridge Creek. Multiple ISCO CM actions have been completed within the Main Yard, targeting some of the areas of higher benzene impact which have acted as source material for groundwater impacts. ISCO processes are chemicals injected or mixed to chemically oxidize target contaminants, such as benzene. The indigenous microbiology is also altered during this process, by being subjected to sudden and intense oxidizing conditions (Fedrizzi et al. 2017; Polli et al. 2018; Sutton et al. 2015). For the purposes of this MNA discussion, monitoring wells chosen to represent various biogeochemical states will deliberately be outside of areas strongly impacted by the various ISCO CM activities within the Main Yard.

Additionally, areas of benzene impacted soil that were collocated with elevated concentrations of lead and benzo(a)pyrene in SWMU 18/AOC 23/AOC 41 have been removed and placed in the CAMU as part of the ESS CM implementation. Dissolved phase benzene concentrations in this area have been reduced from greater than 1,000 µg/L in 2008 to between 1 and 10 µg/L in 2017-2018.

Similar to the Central Yard, background wells in the Main Yard are dominated by nitrate-reducing processes, as represented by MW-154 (MY4), MW-314 (AOC 33), and MW-373 (Former PAOC 84) (**Appendix B**). Nitrate is depleted in all three monitoring wells. Ferrous iron concentrations are three times higher in MW-373 than in MW-154, ranging from 13,500 to 22,000 µg/L. Ferrous iron is even higher in MW-314, ranging from 39,200 to 49,500 µg/L. Sulfate concentrations ranged from approximately 10,000 to 30,000 µg/L in MW-154 and MW-373, with sulfate averaging approximately 2,500 µg/L in MW-373. These data suggest that MW-154 is dominated by strong nitrate-reducing conditions to mild iron-reducing conditions. MW-373 is slightly more reduced, with MNA data trending toward slightly more influence by iron-reducing processes. MW-314 is the most reduced of the

three background wells, clearly under the influence of iron-reducing conditions. Available ORP values support these findings.

Monitoring wells located in areas of low benzene concentration are more reduced than those located outside impacted areas. Represented by MW-0060 (SWMU 43, near the surge pond), MW-118 (AOC 8-NF6), MW-125 (AOC 8-NF6), and MW-395 (PAOC 46), nitrate is depleted in this zone. Detected ferrous iron concentrations are highly variable, ranging from 678 to 33,500 µg/L in 2016 to 2017 (**Appendix B**). These values are generally lower than, or similar to, concentrations detected in background wells. Sulfate concentrations ranged from being often depleted to 189,000 µg/L in 2016 to 2017. Monitoring well MW-118 consistently had sulfate concentrations that were an order of magnitude higher (in 2016 and 2017) than the other three representative monitoring wells, ranging from 147,000 to 189,000 µg/L. However, the overall trend for these four monitoring wells is that they are dominated by a mix of iron-reducing and sulfate-reducing conditions, which are more reduced than the above-described background wells. The ORP values reported for these four monitoring wells typically fall within the range expected for a system dominated by iron-reducing conditions, and thus support the groundwater geochemistry.

The geochemistry of areas impacted by high concentrations of benzene, but outside regions targeted for ISCO treatments, are represented by MW-273 (SWMU 17) and MW-374 (PAOC 46). Although other monitoring wells (such as MW-122 [NF4-2]) are present in areas suitable for assessment, no data exist for those wells for 2016 or 2017. For the two representative monitoring wells, both were depleted in nitrate after 2015. Ferrous iron was depleted for some sampling dates in MW-273 but ranged from 961 to 5,260 µg/L for other dates. Ferrous iron concentrations in MW-374 were within the range demonstrated for MW-273. Sulfate concentrations were close to depleted for all sampling dates for MW-374 and for most sampling dates for MW-273. The highest sulfate concentration for MW-273 was 3,090 µg/L in 2016. For MW-374, the highest sulfate concentration to date for this monitoring well (30,700 µg/L) were reported during the most recent sampling date (February 2018) (**Appendix B**). As such, monitoring wells within non-ISCO-impacted areas of high benzene concentration were much more reduced than those where low levels of benzene were found, likely dominated by either sulfate-reducing conditions or a mix of iron-reducing and sulfate-reducing conditions. This is supported by ORP values for these three monitoring wells. This trend of more reduced geochemistry associated with high concentrations of organic contaminants is a classic fingerprint of MNA.

4.3.3 East Yard

Similar to the Main Yard, the East Yard has had repeated ISCO events to break down targeted areas of high benzene concentrations. The East Yard also experiences possible tidal influences, since the eastern boundary is the Arthur Kill. Although the extent of these possible tidal influences is unresolved at this time, these tidal influences can easily disrupt the typical fingerprint of hydrocarbon MNA because fresh nutrients are regularly washing into an effected area (Chevron 2008a). In addition, non-contaminant organic matter can wash into the system, providing material for the indigenous microbial population to

degrade in preference to hydrocarbon contaminants, but which will cause depletion of the TEA markers typically used for indirect MNA monitoring (Chevron 2008b).

Background conditions in less tidal areas are represented by MW-141 (SWMU 42) and MW-145 (AOC 27). These wells demonstrate nitrate levels that ranged from depleted (MW-145) to 2,700 µg/L (MW-141) in 2016 and 2017. The highest nitrate concentrations were consistently detected in MW-141. Ferrous iron concentrations were low, ranging from being depleted to 313 µg/L in 2016 and 2017. Sulfate levels were elevated in the two monitoring wells for this period, ranging from 98,400 to 118,000 µg/L. Background monitoring wells that are under a possibly increased level of tidal influence, represented by MW-144 (AOC 14), MW-155R (AOC 29), and MW-253 (AOC 14), show depleted nitrate concentrations. Ferrous iron concentrations were higher than found in the less tidal background wells, ranging from 17,800 to 326,000 µg/L during 2016 and 2017. Similarly, sulfate concentrations were higher in more tidal background wells, ranging from 54,200 to 2,260,000 µg/L during this time period. Thus, the general trend is for background wells to be under the influence of nitrate reducing conditions. However, ferrous iron and sulfate concentrations are higher in those background wells that are more under a tidal influence than those that are not, suggesting that there may be an influence of iron-reducing conditions as well in these monitoring wells.

Monitoring wells in low benzene concentration areas possibly impacted by ISCO are represented by MW-236 (AOC 27), MW-245 (SMWU 42), and MW-251 (between AOC 6C and SMWU 3, near PAOC 69) and report nitrate levels similar to those found in background wells. From 2016 through 2017, ferrous iron concentrations ranged from 317 to 23,300 µg/L, falling between concentrations found for background wells. Comparable sulfate concentrations ranged from 21,700 to 180,000 µg/L, which are similar to values found in less-tidal background wells. Thus, these wells appear to be dominated by different anaerobic processes that range from nitrate-reducing to mildly iron-reducing conditions.

Benzene concentrations are high in MW-270 (AOC 31). ISCO was performed in areas surrounding this monitoring well in 2015 and again in mid-2017 into 2018. Nitrate concentrations in MW-270 were depleted. Ferrous iron concentrations in MW-270 ranged from 74,900 to 113,000 µg/L in 2016 and 2017. Sulfate concentrations are similar to those detected in areas of lower benzene concentration. Thus, in contrast to the Central Yard and Main Yard, the classic fingerprint of MNA is not nearly as clear in the East Yard. Instead, as demonstrated by the background monitoring well data, there may be an influence of tidal forces on the geochemistry detected within the East Yard. If true, these repeated pulses of fresh nutrients into the East Yard could blur the traditional pattern of TEA depletion when microbial processes dominate natural attenuation. In addition, historical ISCO events may have impacted areas farther from the injection areas than initially thought, affecting the groundwater geochemistry in some of the discussed wells. Furthermore, many of the tank basins within the East Yard are unlined and regularly flood. The impact that this has on MNA parameters is unclear. This is not to say that biological attenuation is not occurring in the East Yard. Instead, the data suggest that using traditional geochemical parameters to monitor biodegradation will be less effective in the East Yard than in other regions of the Facility. As such, this may be an area to strongly

consider for the application of the below-described in-situ microcosms for the direct evaluation of benzene biodegraders.

4.4 A Review of the Lines of Evidence Approach to Support MNA

MNA is a widely accepted technology for contaminant remediation (Young and Mulligan 2003). It has been successfully used across the globe for a wide range of contaminants, including those found at this Facility. Basic protocols for monitoring biological natural attenuation have also been outlined for decades by organizations such as the USEPA and the US Air Force (Wiedemeier et al. 1999).

A literature search conducted through the National Center for Biotechnology Information (NCBI) literature database, conducted in June 2018, resulted in just under 16,000 peer-reviewed manuscripts when using the keywords “hydrocarbon” and “bioremediation” (NCBI 2018).

This search of the peer-reviewed literature also does not capture professional presentations or the hundreds of scientific books published on this topic. Thus, the large volume of peer-reviewed manuscripts listed in the above database search significantly underestimates the volume of knowledge on this topic as well as its acceptance by the scientific community. With the advent of molecular microbiology and the resulting benefits of being able to directly monitor bacterial actions without the time and labor-intensive need to culture these microbes, this rate of investigation (and thus publishing) has been ever-increasing.

As such, a full review of the topic of MNA is well beyond the scope of this document. However, it will be summarized in accordance with current technical guidance, with a focus on the biological degradation of benzene (NJDEP 2012a). Additionally, an assessment of available in-situ benzene biodegradation rates will be conducted. Finally, a discussion of the possible use of in-situ microcosm (Bio-Trap®) samplers will be conducted as part of an evaluation of possible ways to obtain direct, quantified data regarding the indigenous biodegradation of benzene at the Facility.

4.4.1 Occurrence and Effectiveness of MNA of Petroleum Hydrocarbons as Documented in Literature

Ward et al. (1980) was one of the first manuscripts to report that indigenous microbes played a significant role in breaking down (or “weathering”) many of the components of crude oil, including benzene. The effectiveness of this biodegradation was found to be based on both the chemical structures of the individual components and the different microbial activities occurring in aerobic and anaerobic environments. However, a specific hydrocarbon’s bioremediation efficiency and effectiveness was realized to also be strongly impacted by the presence of other hydrocarbons or site constituents (Atlas 1991; Jennings 2005; Ollivier and Magot 2005; and Vogt et al. 2011).

The introduction of modern molecular and stable-isotope technologies has significantly increased the understanding of in-situ benzene biodegradation, particularly at complex sites where multiple contaminants are present (Chakraborty and Coates 2004; Cupples

2011; Liang et al. 2013; and Mancini et al. 2008). What has become clear, and scientifically accepted, is that in-situ bioremediation is a known mechanism to successfully achieve benzene removal at sites where conditions are similar to those found at this Facility.

4.4.2 Average Biodegradation Rates for COCs Documented in Numerous Case Studies

As eluded to above, there are several factors that can significantly impact the rate of biodegradation for any particular hydrocarbon, including:

- Environmental redox conditions
- Availability of needed macro- and micro-nutrients
- The presence of other hydrocarbons, and the type of hydrocarbons present
- The presence of other, non-hydrocarbon co-contaminants
- The concentration of the target hydrocarbon

As such, trying to accurately predict the biodegradation rate of a hydrocarbon in a particular environment is extremely difficult (Ollivier and Magot 2005). However, some generalizations can be made.

Focusing on the benzene, toluene, ethylbenzene and xylene compounds, benzene is typically the slowest constituent to biodegrade (Edwards 2018). This is because its simple aromatic ring structure has no clear place for metabolic enzymes to start their action. This is one reason for the wide range of strategies derived by those microbes capable of cracking open the strongly-bonded ring structure. Under nitrate-reducing conditions, benzene biodegradation has been measured between 0.1 and 0.4 milligrams per liter per day (mg/L/day). Under sulfate-reducing conditions, this rate is approximately 0.1 to 0.3 mg/L/day. Methanogenic conditions result in the lowest amount of energy gained from benzene metabolism, and thus rates are expected to be the slowest. However, methanogenic benzene biodegradation rates have been reported to be between 0.3 and 2.0 mg/L/day, generally in the presence of a consortium of degrading microbes. However, for comparison purposes, toluene and O-xylene can degrade at a rate of over 10 mg/L/day under methanogenic conditions. Methanogenic toluene and O-xylene biodegrading cultures have a doubling time that is 1/2 to 1/3 that of benzene degrading cultures, even those acting in nitrate-reducing conditions (Edwards 2018).

4.4.3 Discussion of Case Studies Where ISCO and Other In-Situ Remedies Have Been Followed by MNA

Several in-situ contaminant remedies have successfully been followed by MNA. In fact, MNA is such a common polishing method for most contaminants that it has almost been assumed to be a final step for environmental cleanup (Neilson and Allard 2008; Ollivier and Magot 2005; Tally 2006; Wackett and Hershberger 2001). As such, a full description of these case studies is beyond the scope of this document.

In summary, it has been successfully demonstrated that MNA can follow ISCO in an attempt to biodegrade remaining contaminants. Although the addition of oxidant can initially decrease the diversity and size of an indigenous microbial population, rebound

does occur and subsequent natural attenuation has been found to re-establish itself (Polli et al. 2018). This has been observed with multiple ISCO compounds, and the negative impact of the oxidant can be tempered by modifying the application methods of the oxidant (Fedrizzi et al. 2017). However, this rebound of MNA processes may also be dependent on the type of bacteria present. For example, a longer-term rebound period for indigenous degraders was observed during ISCO treatment for chlorinated solvents, compared to studies that looked at hydrocarbon-degrading microbial populations (Sutton et al. 2015).

Thus, ISCO does not permanently prevent benzene biodegradation. However, it may temporarily impact bioattenuation. The degree and length of time that benzene biodegradation is affected by ISCO likely is based on a number of site-specific parameters, such as:

- Site geochemistry
- Type of oxidant used
- Concentration of oxidant injected
- Total volume of oxidant injected
- Type of contaminant being targeted by ISCO
- Concentration of target contaminant being targeted by ISCO
- The presence, and concentration of, any co-contaminants
- The composition and size of the indigenous microbial population targeted for MNA

4.4.4 Possible Assessments for Direct Microbial Evidence of In-Situ Benzene Biodegradation

A substantial amount of valuable, site-specific information could be gleaned through the use of certain molecular technologies that would directly monitor the benzene-degrading population at this Facility. Specifically, using in-situ microcosms (also commercially known as Bio-Traps®), or micro-array technologies. Unlike the use of stable-isotope technologies, which can prove that biological attenuation is occurring, the use of these assessments will provide additional information about the indigenous benzene-degrading microbial population.

In Situ-Microcosms (Bio-Traps®)

Bio-Traps® are the proprietary in-situ biological sampler made by Microbial Insights, Inc. (MI). Each is composed of a perforated polyvinyl chloride (PVC) tube, capped off at each end, and filled with a few hundred BioSep™ beads. BioSep™ beads (also proprietary to MI) are made of an activated carbon and Nomex mixture, which has not just been sterilized but instead has been heated until all residual biomarkers are burned off. Once the beads have been both sterilized and cleaned of residual biomarkers, they are “baited” with an isotopically labeled target compound (benzene).

These beads are then packed into the sterile Bio-Trap® PVC housing, and the resulting sampler is placed into the targeted monitoring well, where indigenous groundwater microbes will enter the bead’s pore spaces. The presence of a carbon source (isotopically-labeled benzene), coupled with the high degree of porosity of the beads, will attract

indigenous microbes to enter the beads once the samplers are put into groundwater. These resident benzene-degraders will then start metabolizing the labeled benzene that was sorbed to the beads, and the isotopic label will be subsequently transferred from the benzene into the degrader's biomass.

After a few weeks, the Bio-Trap® is removed and sent back to the MI laboratory. After opening the Bio-Trap® PVC housing, half of the beads are sent to one laboratory for geochemical assessments. For those getting tested for geochemistry, multiple metrics are measured, including:

- How much isotopically labeled carbon dioxide was captured within the beads (the carbon dioxide being generated from the labeled benzene being fully mineralized); and
- How much of the labeled benzene remains?
    - From this, it can be calculated how much benzene was consumed during the deployment timeframe, and thus, an in-situ degradation rate can be calculated.

The other half of the beads taken from the sampler go to another laboratory for biological testing. These beads are first washed, removing all bacteria that had inhabited the beads (benzene degraders and other non-degraders that were also indigenous) during deployment. The number of cells containing the isotopic tag are then counted. Because the only way this tag could become present in microbial biomass is by the bacteria consuming the tagged benzene, the size of the indigenous benzene-degrading population can be calculated. Finally, the laboratory also investigates the total indigenous population of the targeted monitoring well, including those bacteria that did not metabolize the target, isotopically-labelled compound. Specifically, certain molecules within the cell membranes of these microbes are analyzed. From this assessment, the following information can be learned:

- A full profile of the major groups that make up the indigenous microbial community (fermenters, anaerobes, proteobacteria, and others);
    - The diversity of the overall indigenous community is related to the health of this community
- How stressed out the benzene-degrading microbial community is; and
- If this microbial stress is because of the presence of something toxic, or if the stress is likely due to lacking a required nutrient.

All the above in-situ microcosm data, biotic and abiotic, are quantitative.

Quant-Array (Petroleum) Analysis

A Quant-Array (Petroleum) analysis is proprietary micro-array technique that includes a modified version of a technology called a quantified polymerase chain reaction (qPCR). The Quant-Array (Petroleum) analysis is an "off the shelf" assessment designed to target 22 pre-selected genes commonly important to monitoring petroleum-impacted sites.

These 22 genes, all targeted for quantification, include (but are not limited to) those associated with a variety of aerobic and anaerobic benzene-degradation pathways. In addition, genes associated with the bioattenuation of polyaromatic and alkane hydrocarbons are quantified. This is important because the bioattenuation of these compounds may act in either a complimentary or competitive manner to benzene-specific bioattenuation. Finally, the total microbial population is quantified, as are the number of sulfate-reducing bacteria.

Facility-specific questions that can be answered by the Quant-Array (Petroleum) technology include:

- Are benzene-degrading bacteria present?
- If benzene-degraders are present, what is the size of the population?
- Are population sizes different between one area of a site and another (such as within and outside of any excavated areas)?
- Regarding monitoring site efforts, has the size of a target population changed as a result of site modification efforts such as a bionutrient augmentation process?
- Are specific benzene-degrading mechanisms (such as aerobic or anaerobic processes) occurring and to what degree?
- Is the biodegradation of other site hydrocarbons competing for microbial resources?

Proposed Direct Microbial Assessment Plan

It is suggested that both the in-situ microcosm (Bio-Trap®) and the Quant-Array (Petroleum) analyses be used in tandem, maximizing fiscal responsibility and the amount of Facility information gleaned. This takes advantage of the different strengths of each assessment. Because Quant-Array (Petroleum) analyses would involve a single groundwater grab sample, these could be pulled from certain Facility monitoring wells while other monitoring wells can be targeted for in-situ microcosms.

The key to understanding the current state of MNA at the Facility involves comparing various regions of a targeted plume: the outer periphery, areas of middle-level concentrations, and the plume core. This is because MNA works from a plume periphery inward toward the core. By understanding the microbial activity and any challenges faced by this microbial activity at the periphery and in zones of mid-range benzene concentrations, information can be deduced regarding what to expect when this activity reaches the center of a plume. For example, if the microbial activity appears to be challenged by a lack of specific nutrients in areas of higher activity (the plume periphery), appropriate plans can be made regarding possible nutritional amendments. The location of these amendments could include areas near the plume periphery as well as areas where MNA has yet to start (such as the plume core). This would make it easier for degrading microbes to begin acting in zones of higher concentration than just at the periphery, resulting in a more aggressive removal of benzene mass that would otherwise contribute to this periphery zone.

A formal microbial assessment plan would require a more detailed assessment of targeted monitoring wells of not only current biochemical parameters but also an evaluation of groundwater recharge rates and other geologic information that would prove critical for each of the analyses. For example, confirmation would be needed that any well targeted for an in-situ microcosm sampler would possess a tall enough water column to support the sampler for the entire length of the deployment time. As CM implementation and post-implementation monitoring are completed across the Facility, monitoring wells will be identified for microbial assessment. The following areas will be evaluated for the potential for microbial assessment:

Central Yard

- AOC 25
- AOC 36

Main Yard

- AOC 5/7/44
- AOC 6A/SWMU 35
- AOC 9A
- AOC 8/15
- AOC 33/34
- AOC 41
- SWMU 21/43
- SWMU 40

East Yard

- AOC 6B/29
- AOC 6C/13/SWMU 8
- AOC 14/26
- AOC 27/35/SWMU 10
- AOC 37
- AOC 38/39
- AOC 50

To provide baseline data, microbial assessments will be considered in some areas where CM implementation has not yet begun. CM remedies, such as excavations and trenching, are completed in a relatively short time. Therefore, the type of coordination with any direct microbial analyses would likely be different than the type of coordination needed for a CM remedy such as ISCO implementation.

The resulting data would provide detailed, quantified information about the health and activity level of indigenous benzene degraders. Quantified comparisons of the indigenous benzene degraders can be made between Yards, or between areas within a single Yard.

When compiled, this information can help discern, for example, if benzene biodegradation in some areas would benefit from nutrient or biological amendments. If warranted, then information would be known about what amendments should be considered for what areas to maximize performance. This is information not provided by stable-isotope assessments. Equally important would be determining if no intervention is needed. If MNA is found to be functioning well in an area of the Facility, there may be no reason to perform any effort other than inexpensive, routine monitoring. Proper data would allow this condition to be both confirmed, and properly documented.

A final benefit of in-situ microcosms would be that they provide very robust baseline microbial activity and health data, against which future data can be compared if changes are observed in apparent benzene MNA patterns. The most useful information from the Quant-Array (Petroleum) assessment would include information about what metabolic pathways were being utilized by indigenous benzene biodegraders, as this would allow for information about possible treatments to enhance this activity. In addition, information would be known about other indigenous hydrocarbon degradation pathways - information that would be very helpful in areas where benzene-specific MNA has yet to take hold. The primary benefit of the in-situ microcosm samplers is that current, in-situ benzene biodegradation rates could be obtained. This information would be particularly useful when long-term MNA solutions are being considered.

Facility conditions are known to match those that would support long-term benzene biodegradation and MNA activities. In addition, indirect Facility information (such as geochemical data) shows that MNA is occurring in many areas and will likely occur in areas currently undergoing active CM implementation. As a result of more direct microbial information, however, direct MNA monitoring and documentation could occur.

4.4.5 Estimates of Biodegradation Rates Based on Historical (Pre-ISCO) Concentration Data

There are no direct bioattenuation data available at this Facility. Instead, currently available data include estimates of benzene mass present at various times and estimates of benzene mass lost during ISCO or excavation events. At best, this information can provide an estimate of total benzene mass removal over a period of time. However, in order to accurately quantify a rate of biological degradation, additional information would be needed regarding how much of this benzene loss had been associated with biological activity. Unlike stable-isotope assessments, which can confirm that benzene biodegradation is occurring, the rate of benzene biodegradation cannot be accurately calculated with stable-isotope tools.

However, this is something that can be determined for current site conditions.

Direct biological monitoring, using in-situ microcosms as proposed above, will generate a current in situ benzene biodegradation rate. When the microcosms are strategically placed around the Facility, information can be gleaned about biodegradation rate differences between Yard and between areas within a given Yard. As described above, this information can assist with future yard maintenance, can help design biodegradation enhancements, and will act as quantified baseline data for future monitoring.

These benefits could be achieved both for areas where ISCO has been applied as well as areas where ISCO has never occurred.

4.5 Summary of Conclusions, MNA Analysis

An evaluation of MNA at the Facility indicates that natural attenuation processes are occurring. MNA has been active even when bulk material removal (through a variety of CM remedies) was occurring in more heavily-impacted areas of the Facility. This is based on the following:

- Benzene has been largely contained on site over decades of time.
- Benzene concentrations and footprint size is decreasing, including areas not targeted by any active reduction methods such as ISCO and excavation.
- MNA geochemical indicators support that site conditions are favorable for MNA and demonstrate a clear fingerprint of active MNA.
- Benzene biodegradation is known to occur at the Facility.

A comparison of the footprint of various concentrations of benzene over the past 10 years shows that the contaminant remains contained on site (**Figure 10**). As important, concentrations continue to decrease, even in areas where active remediation has not occurred. Furthermore, the actual benzene footprint has decreased. This is particularly true in areas of mid to lower benzene concentrations, which would be the most amenable to biodegradation.

An assessment of MNA geochemical parameters for each of the three yards shows that a clear fingerprint of biological hydrocarbon degradation is present. The observed, overall trend is that background monitoring wells demonstrated the least reduced environments. The degree of reduction increased as benzene concentrations increased. This was consistently supported by current benzene concentrations as well as multiple MNA geochemical parameters, including concentrations of nitrate, ferrous iron, sulfate, and reported ORP values. This fingerprint is not seen if only abiotic processes are degrading site contaminants.

Methane was not a helpful MNA marker at the Facility because none of the targeted monitoring wells were reported to be dominated by methanogenic conditions. The production of sulfide during sulfate-reduction processes proved to be an inconclusive metric, since reported sulfide concentrations varied widely over time and between monitoring wells. This is likely an effect of sulfide being highly reactive, particularly in environments such as this where various forms of iron are present, often resulting in the precipitation of sulfide as iron sulfides. Thus, sulfide concentrations do not always reliably reflect environmental conditions.

Finally, it should be noted that groundwater at the Facility is not being used as potable water. Therefore, there is no specific time constraint for the groundwater to achieve compliance in an expedited manner that may otherwise warrant enhanced CMs.

5.0 CORRECTIVE MEASURE TECHNOLOGY SUMMARY

5.1 General Overview

USEPA (1999) defines natural attenuation as the biodegradation, diffusion, dilution, sorption, volatilization, and/or chemical and biochemical stabilization of contaminants to effectively reduce contaminant toxicity, mobility, or volume to levels that are protective of human health and the environment (1999). Typically, MNA is used in conjunction with active remediation. At the Facility it will be implemented as a CM for groundwater with concentrations ranging from 1 µg/L to 100 µg/L. Above this concentration, active remediation such as ISCO will be employed to bring concentrations within this range, where MNA will subsequently take over as the primary remedy.

Geochemical data from the monitoring wells located in the Main Yard, East Yard and Central Yard of the Facility were analyzed. Approximately 320 wells throughout these yards were sampled and analyzed for groundwater geochemical (MNA) parameters between 2014 and 2018. These data were analyzed to confirm that MNA will effectively reduce low levels of organic contamination in the groundwater.

5.2 Source Control

A key component of successful MNA is that the influx of new contaminants is controlled either through containment, removal, or treatment, so that it is no longer contributing to the dissolved phase. This is currently being conducted in select areas through the implementation of ISCO or similar remedies, as described above. Progress with ISCO treatments will be reported in ISCO-specific documents and communications, as opposed to within this MNA-specific document.

As already described in detail within this report, a comparison of benzene concentrations over the last 10 years shows that areas of high contamination have significantly reduced in size. The remaining areas of low concentration are prime targets for biological attenuation, and over time will shrink in size as the indigenous microbial population consumes site constituents. This suggests that the existing groundwater plumes are stable and have the potential to attenuate after adequate mass reduction is accomplished.

5.3 Institutional Controls

Institutional controls may be appropriate to protect human health and the environment in areas where soil and groundwater contaminant concentrations will exceed applicable criteria/standards following the application of a CM. Institutional controls are non-engineering measures, such as administrative and/or legal controls, that help minimize the potential for human exposure to contamination by limiting the land use in the area to which it was applied. Institutional controls include deed restrictions for impacted soil and CEAs for impacted groundwater. CEAs are established to provide notice that the groundwater quality standards for an aquifer classification are not or will not be met in a localized area due to natural water quality or anthropogenic influences. Designated aquifer uses are suspended in the affected area for the term of the CEA to ensure that the uses

of the aquifer are restricted until the GWQSs are achieved, thereby limiting the potential for human exposure.

N.J.A.C. 7:9-6 (New Jersey GWQS) provides the basis for the protection of groundwater quality through the establishment of constituent standards for groundwater pollutants. The standards impact all site remediation cases where groundwater contamination exceeds the standards applicable to the groundwater classification area in which the site is located. The Facility is in a Class-IIA aquifer, and groundwater quality standards are summarized in Table 1. The Farrington Aquifer near the Facility is designated as Class IIIB groundwater, which is not suitable for conversion to potable uses. Groundwater is not used as a source of water supply within at least two miles of the Facility.

6.0 REVIEW OF CURRENT MONITORED NATURAL ATTENUATION PROGRAM

This section provides a general outline of the monitoring program (i.e., performance monitoring that has been implemented as part of the MNA CM). The goals of this review of ongoing MNA efforts are:

- Evaluate the performance of the MNA CM
- Determine the effort needed to achieve the cleanup goals
- Ensure safe and successful implementation of the MNA CM

As part of the monitoring program, at a minimum, groundwater samples will still be collected from upgradient, within and downgradient of the impacted areas. The monitoring well locations for the monitoring program are selected such that the contaminant concentrations within and downgradient of the impacted zones can be evaluated and compared to the corrective measure objectives.

The quality assurance and quality control (QA/QC) for the monitoring program was established as part of the Corrective Measures Implementation Field Sampling and Analysis Plan/Quality Assurance Project Plan (FSAP-QAPP) (Chevron 2016).

6.1 Data Gaps

The overall current monitoring plan does allow for some questions about Facility MNA to be answered. However, many questions still remain, such as:

- What is the specific effect of ISCO events on indigenous benzene biodegradation populations, including how long does this population take to recover from exposure to ISCO treatments?
- What is the indigenous benzene-degrading rate at various locations within each Yard of this Facility?
- How healthy and active are the native benzene biodegraders?

Some of these identified data gaps can be addressed while CM activities are occurring; however, others will need to wait until CM implementation completion has been achieved. Trends for benzene degradation through MNA cannot be accurately calculated during active remediation. Additionally, remediation methods such as ISCO and ISS/ESS can temporarily alter the geochemistry by removing benzene mass, and by amending groundwater parameters by adding oxygen and sulfate.

In summary, for some areas of the Facility, adequate long-term MNA data are available. However, other areas of the Facility are still in the process of achieving this long-term trend reporting. Despite not having a complete MNA profile of the entire Facility:

- Strong data are available to show that Facility conditions are correct for MNA to occur;
- Multiple lines of evidence show that MNA is occurring at the Facility; and

- Conditions are good for MNA to begin in Facility areas where active CM implementation is currently occurring.

As such, there is a very high degree of confidence that MNA will be a successful step throughout the Facility, and MNA is a reasonable step in the process of meeting Facility endpoints.

6.2 Performance Monitoring

Groundwater monitoring will continue to be conducted to determine the concentrations and distribution of contaminants, geochemical parameters, and MNA related parameters (e.g., alkalinity, pH ORP, sulfides, dissolved iron, total iron, DO, and nitrates). The data collected during performance monitoring will be used for the following purposes:

- Evaluate treatment effectiveness of the MNA CM
- Monitor groundwater quality within and downgradient of the MNA areas
- Determine whether cleanup goals have been achieved
- Monitor downgradient migration of contaminant(s) and, if appropriate, daughter products
- Evaluate the persistence/attenuation period of the COCs and, if appropriate, daughter products

Groundwater monitoring frequency and location plan has been developed and is provided in **Appendix C**. The frequency and location of performance monitoring events has been determined for each treatment area based on the size of the treatment area, anticipated benzene degradation rates, chemical and geochemical changes observed historically, and the timeframe necessary to achieve CM objectives/regulatory requirements.

The suite of contaminant, geochemical, and MNA parameters to be assessed for each monitoring well being sampled is also detailed in **Appendix C**. For long term MNA evaluation, all MNA parameters and VOC data from an individual well should be acquired on the same day (or at least within the same few days). This will make data evaluations more accurate by eliminating variables such as weather events and disturbances due to high purge rates used for other COCs.

During groundwater sampling, testing, and reporting, established standard operating procedures in the FSAP/QAPP (Chevron 2016) will be followed.

Ongoing MNA activities should be performed in coordination with mass reduction efforts, such as ISCO or other means. A table of injections, locations of injections (including a map to compare injection locations with monitoring well locations), type and concentration of injected material, and anticipated radius of influence of each ISCO event, and other CM technologies will be incorporated into the MNA tracking until CM implementation is complete. Mass removal activities will be summarized in future MNA CM Progress Reports, as detailed in Section 7 of this document.

In addition, a formal evaluation should be conducted to determine the feasibility of using the above-described direct methods to directly evaluate, monitor, and quantify information about the indigenous benzene-degrading microbial community. The goal of this evaluation is to identify the level of effort needed for such a Facility analysis, while also determining the project benefits (such as understanding the distribution of indigenous benzene degraders, the health of this microbial population, and having quantified benzene biodegradation rates for various locations at the Facility). This evaluation should include:

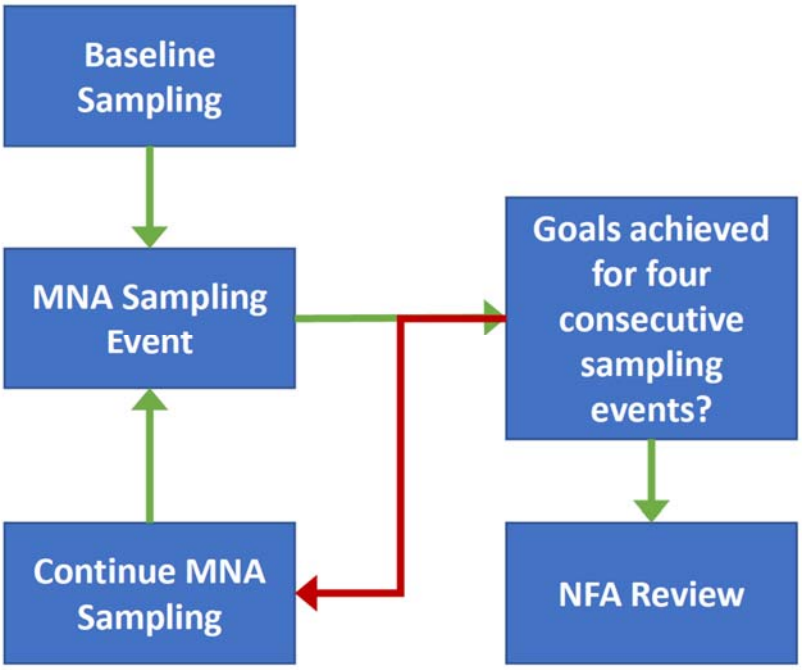
- Recommended locations for Quant-Array (Petroleum) groundwater grab samples
- Recommended locations of Bio-Trap® sampler placement within each Facility yard
- Estimated laboratory, data analysis, and reporting costs
- Expected benefits to each yard and the Facility as a whole

This report contains an introduction to these proposed, direct-monitoring technologies along with a guidance that both areas of higher benzene concentration as well as periphery zones be assessed. These areas are targeted due to ongoing benzene impacts, a desire to determine the extent of current MNA in these regions, and information about possible mechanisms to enhance or better monitor this MNA.

In summary, MNA is known to occur in environments found in many regions at the Facility. In Facility areas where MNA has been monitored to a less degree, geochemical conditions match those that would be expected to support MNA activities. The current goal is to conduct ongoing CM activities in such a way that MNA can subsequently be initiated in a manner that is as effective and efficient as possible.

6.3 MNA Corrective Measures Completion

The overall goal of data collection during performance monitoring is to assist in tracking the progress of the remediation. The data obtained during the performance monitoring will be evaluated using the process depicted below:



Once the performance monitoring results confirm the MNA CM objectives have been achieved, Chevron will evaluate the area for an NFA determination for groundwater. An NFA request will be made when an area has maintained benzene concentrations under 1 µg/L for four consecutive sampling events. NFA requests will be provided as part of the biennial CEA Certification Report.

7.0 DOCUMENTATION AND APPROVAL PROCESS

7.1 Data Management

The data management process includes procedures necessary to ensure consistent and complete collection of field data, tracking of laboratory analytical data and data validation status, consistent and timely production of electronic data deliverables (EDDs) from participating laboratories, and accurate and timely entry of EDDs into the Environmental Information Management (EIM) database. The EIM database is a computerized database management system that will be employed to manage and organize the field and analytical data that will be generated during the life-cycle of the MNA CM for the Facility. The Facility Data Management Plan (DMP) (Chevron 2017b) will continue to serve as a general standard and guideline for all data management practices. The DMP establishes procedures that will be followed to plan, collect, create, and track data collected as part of MNA implementation.

7.2 Documentation Requirements

Parsons will continue to document field activities in field log books dedicated to the MNA CM. During MNA implementation, a groundwater sampling log will continue to be maintained to record daily sampling activities, including such parameters as location, groundwater parameters, sample data. In addition to this IWP, implementation of the MNA CM will include preparation and submittal of an annual Corrective Measure Progress Report to USEPA and NJDEP for their review and approval.

An annual MNA CM Progress Report will be submitted for calendar years 2019 and 2020 and will include information on the implementation of the MNA CM at the Facility during the reporting period. The CM Progress Report will contain the following information specific to MNA:

- Summary of the field activities completed
- Summary of data obtained
  - Groundwater sampling results
  - Well completion details
  - Summary of field measurements
- Summary of the MNA implementation
  - Evaluation of collected MNA parameter data
  - Evaluation of MNA treatment effectiveness (e.g., COC trends)
  - Evaluation of any secondary effects (e.g., daughter products, evidence of new releases)
  - Deviations from the approved IWP
- Evaluation of analytical data
- Summary of the impact of ISCO and other mass reduction measures on MNA

- Summary of any findings from evaluating the use of in-situ microcosm samplers (Bio-Traps®), as well as a summary if the actual Bio-Trap® study is conducted
- Summary of any other MNA results obtained in conjunction with ISCO activities
- Conclusions and Recommendations

When implementation of CMs have been completed in 2020, biennial sampling will be conducted consistent with the requirements of the CEA Remedial Action Protectiveness/Biennial Certification. The CEA biennial certification will be submitted beginning two years after the CEA is approved.

8.0 HEALTH AND SAFETY

This section provides details about the health and safety aspects of MNA implementation.

A comprehensive health and safety plan was developed prior to the initial field implementation of the MNA CM. The plan included job safety analyses (JSAs), standard operating procedures, emergency procedures, and site security requirements.

For current and future MNA sampling events, a daily tail gate safety meeting and JSA review will be conducted as part of field implementation at individual AOCs and SWMUs.

The Facility is not accessible to the general public and is subject to stringent site access controls including fencing, security gates, and security patrols.

9.0 PERMITTING

This section describes the permits that have been identified as being necessary for the MNA CM.

9.1 Modified HSWA Permit

Chevron is currently conducting CM activities under the 2013 HSWA Permit Renewal from the USEPA. The HSWA permit outlines the selected remedy and scope of MNA CM.

10.0 PROJECT MANAGEMENT APPROACH

This section describes the project management approach including levels of authority and responsibility of parties who will be involved in the MNA CM design and implementation.

The USEPA is currently the lead regulatory agency and provides oversight of environmental cleanup performed by Chevron and its contractors in accordance with the requirements defined in the HSWA Permit Renewal. The USEPA will issue a CA 550 for the MNA CM upon completion of active remediation and demonstration that MNA is occurring as described in this IWP. The MNA CM may continue after the CA 550 is issued.

Chevron is the current responsible party for the environmental cleanup at SWMUs and AOCs included in the HSWA Permit Renewal. Chevron will oversee design, implementation, selection of appropriate contractors, selection of a NJDEP-certified laboratory for sample analysis, and coordination with the regulatory agencies.

Parsons has been selected by Chevron to manage and implement CMs across the Facility as recommended in the CMS, including the MNA CM. Parsons is responsible for the preparation of this IWP, implementation of the MNA CM, and preparation of the annual CM Progress Report.

Buckeye currently owns and operates the Facility and will be responsible for providing Chevron with unrestricted access to the areas that require the MNA CM.

11.0 WASTE MANAGEMENT PLAN

Waste generated during the MNA CM implementation and monitoring activities will be managed and disposed in accordance with federal, state and local regulations. The Chevron Perth Amboy Facility Waste Management Plan, Version 1.0 (Chevron 2017a) provides specific details of staging, handling, characterization and disposal procedures.

The following types of waste are anticipated during the implementation of MNA CMs:

- **Decontamination and purge water** - Decontamination and purge water will be generated during equipment cleaning and groundwater sampling.
- **Used personal protective equipment (PPE) and disposable sampling equipment** - Small quantities of used PPE and disposable sampling equipment (e.g., tubing, plastic spoons) will be generated during field activities.
- **General refuse** – site activities will result in generation of general refuse such as paper towels, shipping/storage containers for amendments, shipping pallets, plastic bags, and paper sacks.

12.0 PROJECT SCHEDULE

The overall project schedule is contingent on multiple factors, including USEPA and NJDEP review and approval of this IWP. Detailed schedules for MNA implementation at each SWMU and AOC will be provided in future area-specific submittals. All proposed schedules are based on the assumption that unrestricted access to the Facility and areas where the MNA CM is being implemented is/will be available to conduct the field activities. The schedule may need revisions based on factors that are beyond Chevron's control. If necessary, the schedule will be updated annually as part of the annual CM Progress Report.

MNA Field and Reporting Activities Schedule

Timeframe	Sampling	Reporting
1Q 2019 – 4Q 2020	Quarterly	Annual
2021-2028	Biennial	With Biennial CEA Certification
>2028	Biennial until all MNA goals are achieved.	With Biennial CEA Certification

If the proposed dates or length of time for the above tasks require adjustment, Parsons will make the necessary adjustments and update the schedule.

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TABLE

Table 1
NJDEP Groundwater Quality Standards
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

Constituent	Applicable Cleanup Standard
Volatile Organic Compounds (µg/L)	
1,1,1-Trichloroethane	30
1,1,2,2-Tetrachloroethane	1
1,1,2-Trichloroethane	3
1,1-Dichloroethane	50
1,1-Dichloroethylene	1
1,2,4-Trichlorobenzene	9
1,2-Dichloroethane	2
1,2-Dichloropropane	1
2-Hexanone	300
Acetone	6,000
Benzene	1
Bromodichloromethane	1
Bromoform	4
Carbon disulfide	700
Carbon tetrachloride	1
Chlorobenzene	50
Chloroethane	5
Chloroform	70
cis-1,2-Dichloroethylene	70
cis-1,3-Dichloropropene	1
DBCP	0.02
Dibromochloromethane	1
Dichlorodifluoromethane	1,000
Ethylbenzene	700
Freon 113	20000
Methyl Acetate	7,000
Methyl bromide	10
Methyl chloride	3
Methyl ethyl ketone	300
Methylene chloride	3
Methyltert-butylether	70
o-Dichlorobenzene	600
Styrene	100
Tetrachloroethylene	1
Toluene	600
trans-1,2-Dichloroethene	100
trans-1,3-Dichloropropene	1
Trichloroethylene	1
Trichlorofluoromethane	2,000
Vinyl chloride	1
Xylene (total)	1,000

Table 1
NJDEP Groundwater Quality Standards
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

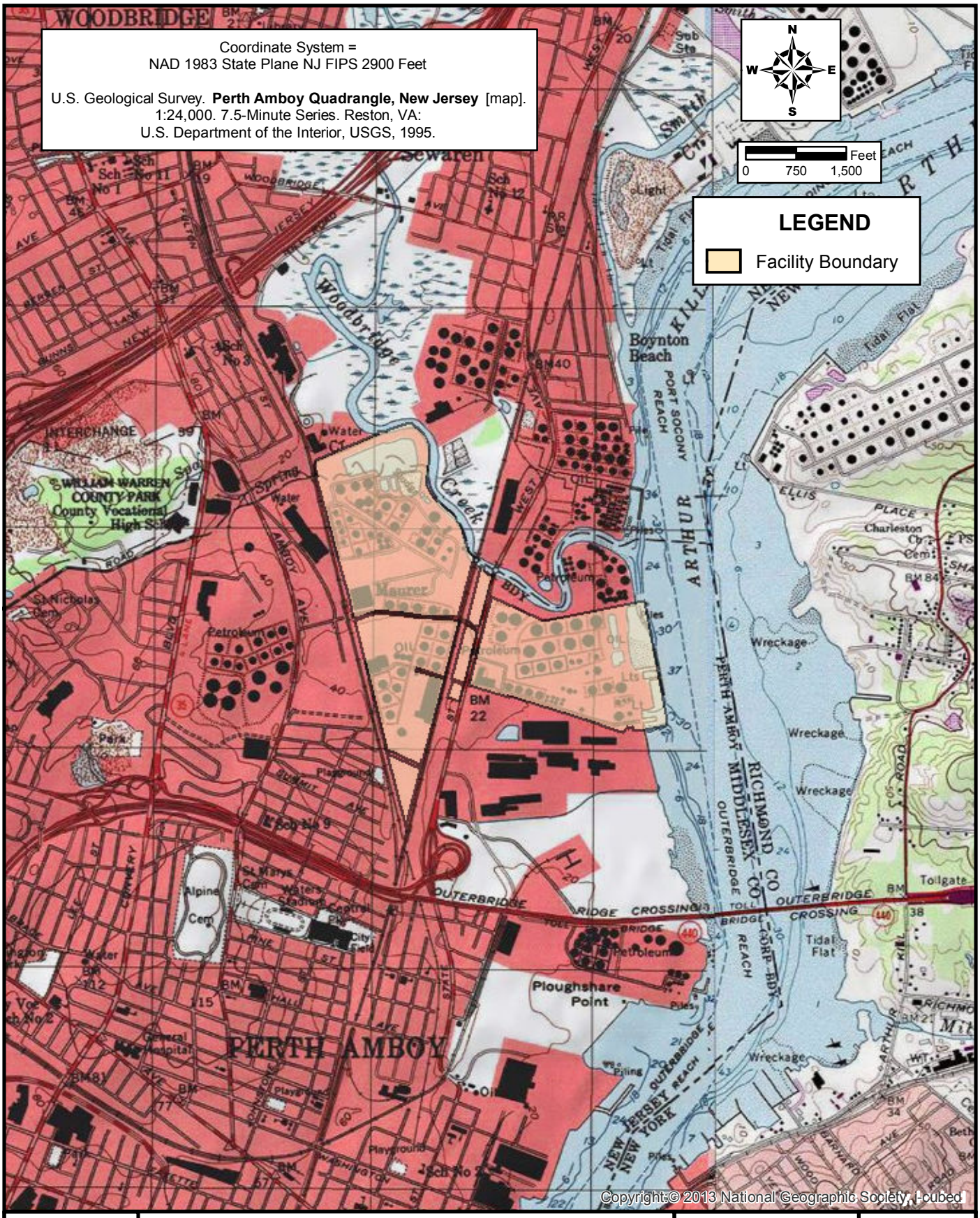
Constituent	Applicable Cleanup Standard
Geochemistry (µg/L)	
Ammonia Nitrogen	3,000
Chloride (titrimetric)	250,000
Nitrate Nitrogen	10,000
Sulfate (turbidimetric)	250,000
Total Dissolved Solids	500,000
Semi-Volatile Organic Compounds (µg/L)	
2,4,5-Trichlorophenol	700
2,4,6-Trichlorophenol	20
2,4-Dichlorophenol	20
2,4-Dimethylphenol	100
2,4-Dinitrophenol	40
2-Chloronaphthalene	600
2-Chlorophenol	40
2-Methylnaphthalene	30
3,3-Dichlorobenzidine	30
4,6-Dinitro-o-cresol	1
Acenaphthene	400
Acenaphthylene	100
Acetophenone	700
Anthracene	2,000
Atrazine	3
Benzo(a)anthracene	0.1
Benzo(a)pyrene	0.1
Benzo(b)fluoranthene	0.2
Benzo(ghi)perylene	100
Benzo(k)fluoranthene	0.5
Bis(2-chloroethyl)ether	7
Bis(2-ethylhexyl)phthalate (BEHP)	100
Butyl benzyl phthalate	100
Caprolactam	5000
Chrysene	5
Di-n-butyl phthalate	700
Di-n-octyl phthalate	3
Dibenzo(a,h)anthracene	0.3
Diethyl phthalate	6,000
Dimethyl phthalate	100
Fluoranthene	300
Fluorene	300
Hexachlorobenzene	0.02
Hexachlorobutadiene	1
Hexachlorocyclopentadiene	40
Hexachloroethane	7

Table 1
NJDEP Groundwater Quality Standards
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

Constituent	Applicable Cleanup Standard
Indeno(1,2,3-cd)pyrene	0.2
Isophorone	40
N-Nitrosodiphenylamine	10
Naphthalene	300
Nitrobenzene	6
o-Cresol	50
p-Cresol	50
Phenanthrene	100
Phenol	2,000
Pyrene	200
Metals (µg/L)	
Aluminum	200
Antimony	6
Arsenic	3
Barium	6,000
Beryllium	1
Cadmium	4
Chromium	70
Cobalt	100
Copper	1,300
Iron (Total)	300
Iron (Dissolved)	300
Lead	5
Mercury	50
Nickel	100
Selenium	40
Silver	40
Sodium	50,000
Thallium	2
Vanadium	60
Zinc	2,000

Notes:
The above values were obtained from the N.J.A.C 7:9C Class II-A Ground Water Quality Standards, Last Amended January 16, 2018.

FIGURES



Path: \\NJSOM02FS01\Projects\Projects\Chevron\DMS\Projects\Sitewide MNA\Sitewide\Figures\Sitewide MNA - Groundwater Benzene - Figure 1 - USGS Map.mxd

Chevron

SITE LOCATION ON A USGS MAP

MONITORED ATTENUATION
IMPLEMENTATION WORK PLAN

DATE: 6/18/2018	DWN: TDU
	CHKD: CC
PROJECT #: 450915-02000	FIG #: 1

Path: \\NJSOM02FS01\Projects\Projects\Chevron\DMS\Projects\Sitewide MNA\Sitewide\Figures\Sitewide MNA - Groundwater Benzene - Figure 2 - Aerial Photo.mxd

NOTE:
Aerial photograph dated October 2017 was provided by Parsons.

AERIAL PHOTOGRAPH OF FORMER CHEVRON PERTH AMBOY FACILITY

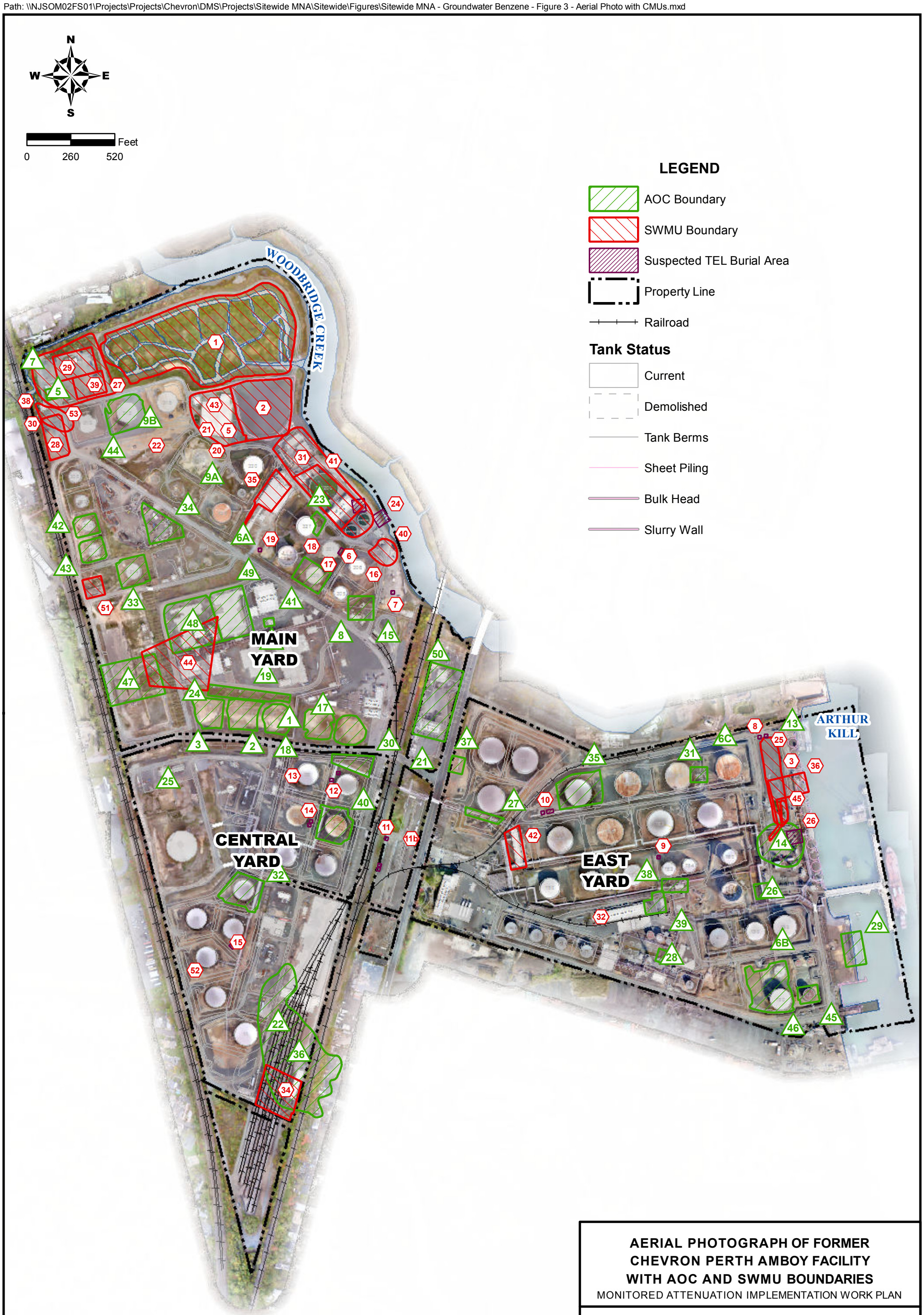
MONITORED ATTENUATION IMPLEMENTATION WORK PLAN

Chevron

CHEVRON
ENVIRONMENTAL MANAGEMENT COMPANY
PERTH AMBOY, NEW JERSEY

PROJECT #:	DATE:	DWN:	CHKD:	FIG NO.:
450915-02000	6/19/2018	TDU	CC	2

Path: \\NJSOM02FS01\Projects\Projects\Chevron\DMS\Projects\Sitewide MNA\Sitewide\Figures\Sitewide MNA - Groundwater Benzene - Figure 3 - Aerial Photo with CMUs.mxd



NOTE:
Aerial photograph dated October 2017 was provided by Parsons.

AERIAL PHOTOGRAPH OF FORMER CHEVRON PERTH AMBOY FACILITY WITH AOC AND SWMU BOUNDARIES

MONITORED ATTENUATION IMPLEMENTATION WORK PLAN

Chevron

CHEVRON
ENVIRONMENTAL MANAGEMENT COMPANY
PERTH AMBOY, NEW JERSEY

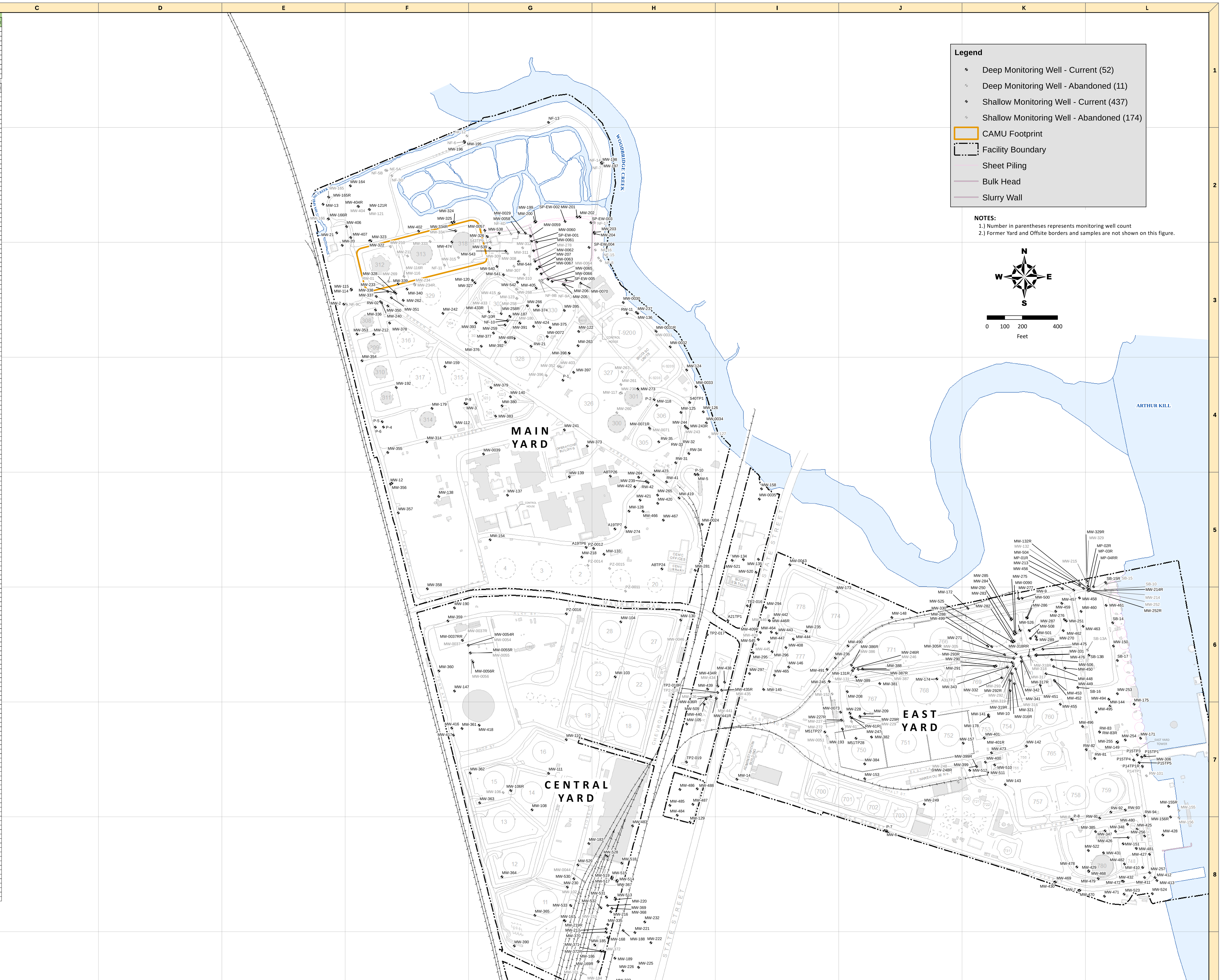
PROJECT #:	DATE:	DWN:	CHKD:	FIG NO.:
450915-02000	8/21/2018	TDU	CC	3

Current Monitoring Wells List 1				
LOCATION ID	GRID CELL	DATE INSTALLED	YARD	GW ZONE
MW-303	C7	9/17/2009	Former Yard	Shallow
MW-12S	D4	10/10/1991	Off Site	Shallow
MW-11R	D6	9/10/2009	Former Yard	Shallow
MW-40R	D7	9/10/2009	Former Yard	Shallow
MW-13	E2	10/15/1991	Main Yard	Shallow
MW-165R	E2	3/27/2017	Main Yard	Shallow
MW-166R	E2	3/28/2017	Main Yard	Shallow
MW-21	E2	2/20/1992	Main Yard	Shallow
MW-2	E3	9/17/1991	Main Yard	Shallow
MW-20	E3	2/20/1992	Main Yard	Shallow
MW-13S	E5	10/15/1991	Off Site	Shallow
MW-14S	E5	10/9/1991	Off Site	Shallow
MW-15S	E5	2/19/1992	Off Site	Shallow
MW-0076R	E6	9/24/2002	Former Yard	Shallow
MW-23R	E6	9/8/2009	Former Yard	Shallow
MW-300	E6	9/11/2009	Off Site	Shallow
MW-301	E6	9/8/2009	Former Yard	Shallow
MW-302	E6	9/4/2009	Former Yard	Shallow
MW-304	E6	9/9/2009	Former Yard	Shallow
MW-77R	E6	10/22/2007	Former Yard	Shallow
MW-86R	E6	10/23/2007	Former Yard	Shallow
MW-92R	E6	2/5/2015	Off Site	Shallow
MW-93R	E6	2/5/2015	Off Site	Shallow
MW-80R	E7	10/21/2007	Former Yard	Shallow
MW-121R	F2	3/27/2017	Main Yard	Shallow
MW-164	F2	1/29/2003	Main Yard	Shallow
MW-195	F2	10/5/2004	Main Yard	Shallow
MW-196	F2	10/5/2004	Main Yard	Deep
MW-322	F2	12/8/2011	Main Yard	Shallow
MW-323	F2	12/7/2005	Main Yard	Deep
MW-324	F2	12/6/2011	Main Yard	Shallow
MW-325	F2	12/7/2011	Main Yard	Deep
MW-334R	F2	11/10/2015	Main Yard	Shallow
MW-402	F2	3/11/2014	Main Yard	Shallow
MW-404R	F2	3/31/2017	Main Yard	Shallow
MW-114	F3	7/17/2002	Main Yard	Shallow
MW-115	F3	7/18/2002	Main Yard	Deep
MW-212	F3	12/17/2007	Main Yard	Shallow
MW-233	F3	4/7/2006	Main Yard	Shallow
MW-234RR	F3	8/10/2017	Main Yard	Shallow
MW-240	F3	11/2/2006	Main Yard	Deep
MW-242	F3	10/25/2006	Main Yard	Shallow
MW-262	F3	12/6/2006	Main Yard	Shallow
MW-112	F4	7/16/2002	Main Yard	Shallow
MW-159	F4	10/25/2002	Main Yard	Shallow
MW-179	F4	3/19/2003	Main Yard	Shallow
MW-192	F4	3/6/2007	Main Yard	Shallow
MW-3	F4	9/19/1991	Main Yard	Shallow
MW-314	F4	6/23/2010	Main Yard	Shallow
MW-12	F5	10/10/1991	Main Yard	Shallow
MW-138	F5	8/27/2002	Main Yard	Shallow
MW-0037RR	F6	10/20/2016	Central Yard	Shallow
MW-0054R	F6	10/20/2016	Central Yard	Shallow
MW-147	F6	8/21/2002	Central Yard	Shallow
MW-190	F6	6/8/2004	Central Yard	Shallow
MW-0029	G2	4/2/1996	Main Yard	Shallow
MW-0057	G2	2/22/2000	Main Yard	Shallow
MW-0058	G2	2/22/2000	Main Yard	Shallow
MW-0059	G2	2/23/2000	Main Yard	Shallow
MW-0060	G2	2/23/2000	Main Yard	Shallow
MW-199	G2	10/7/2004	Main Yard	Shallow
MW-200	G2	10/8/2004	Main Yard	Deep
MW-201	G2	10/6/2004	Main Yard	Shallow
MW-202	G2	10/7/2004	Main Yard	Deep
MW-0061	G3	2/23/2000	Main Yard	Shallow
MW-0062	G3	2/24/2000	Main Yard	Shallow
MW-0063	G3	2/24/2000	Main Yard	Shallow
MW-0065	G3	2/25/2000	Main Yard	Shallow
MW-0066	G3	2/25/2000	Main Yard	Shallow
MW-0067	G3	3/1/2000	Main Yard	Shallow
MW-0070	G3	7/21/2000	Main Yard	Shallow
MW-0072	G3	8/21/2000	Main Yard	Shallow
MW-120	G3	7/16/2002	Main Yard	Shallow
MW-122	G3	8/1/2002	Main Yard	Shallow
MW-123R	G3	6/20/2017	Main Yard	unknown
MW-187	G3	3/29/2004	Main Yard	Deep
MW-205	G3	10/11/2004	Main Yard	Shallow
MW-206	G3	10/7/2004	Main Yard	Deep
MW-207	G3	11/9/2004	Main Yard	Shallow
MW-258R	G3	3/1/2018	Main Yard	Shallow
MW-259	G3	12/4/2006	Main Yard	Shallow
MW-263	G3	12/6/2006	Main Yard	Shallow
MW-266	G3	12/7/2006	Main Yard	Shallow
MW-268R	G3	6/16/2017	Main Yard	unknown
MW-0039	G4	2/10/1998	Main Yard	Shallow
MW-140	G4	8/16/2002	Main Yard	Shallow
MW-241	G4	10/25/2006	Main Yard	Shallow
A19TP6	G5	11/18/2002	Main Yard	Shallow
MW-137	G5	8/27/2002	Main Yard	Shallow
MW-139	G5	9/27/2002	Main Yard	Shallow
MW-154	G5	10/2/2002	Main Yard	Shallow
MW-218	G5	8/29/2005	Main Yard	Shallow
MW-0055R	G6	10/20/2016	Central Yard	Shallow
MW-0056R	G6	11/1/2016	Central Yard	Shallow
MW-106R	G7	2/11/2003	Central Yard	Shallow
MW-108	G7	7/10/2002	Central Yard	Shallow
MW-110	G7	7/15/2002	Central Yard	Shallow
MW-111	G7	7/11/2002	Central Yard	Shallow
MW-167	G8	1/29/2003	Central Yard	Shallow
MW-183	G8	1/5/2004	Central Yard	Shallow
MW-219R	G8	9/22/2014	Central Yard	Shallow
MW-230	G8	5/2/2006	Central Yard	Shallow
MW-170R	G9	6/26/2015	Off Site	Shallow
MW-197	H2	10/5/2004	Main Yard	Shallow
MW-198	H2	10/6/2004	Main Yard	Deep
MW-203	H2	11/4/2004	Main Yard	Shallow
MW-204	H2	11/4/2004	Main Yard	Deep
MW-0030	H3	3/17/1997	Main Yard	Shallow
MW-0031R	H3	3/28/2013	Main Yard	Shallow
MW-0032	H3	3/17/1997	Main Yard	Shallow
MW-136	H3	8/19/2002	Main Yard	Shallow
MW-237	H3	10/30/2006	Main Yard	Deep
MW-0033	H4	3/18/1997	Main Yard	Shallow
MW-0034	H4	3/18/1997	Main Yard	Shallow
MW-0071R	H4	1/31/2014	Main Yard	Shallow
MW-118	H4	8/1/2002	Main Yard	Shallow
MW-124	H4	7/24/2002	Main Yard	Shallow
MW-125	H4	7/29/2002	Main Yard	Shallow
MW-126	H4	7/25/2002	Main Yard	Shallow
MW-243R	H4	5/26/2016	Main Yard	Shallow
MW-244	H4	11/10/2006	Main Yard	Deep
MW-273	H4	1/16/2007	Main Yard	Shallow
A19TP7	H5	11/11/2002	Main Yard	Shallow
A8TP24	H5	11/5/2002	Main Yard	Shallow
A8TP26	H5	11/7/2002	Main Yard	Shallow
MW-0024	H5	6/14/1995	Main Yard	Shallow
MW-128	H5	7/30/2002	Main Yard	Shallow
MW-133	H5	8/28/2002	Main Yard	Shallow
MW-239	H5	11/3/2006	Main Yard	Deep
MW-264	H5	12/7/2006	Main Yard	Shallow
MW-265	H5	12/7/2006	Main Yard	Shallow
MW-274	H5	10/2/2008	Main Yard	Shallow
MW-281	H5	12/18/2007	Main Yard	Shallow
MW-103	H6	7/9/2002	Central Yard	Shallow
MW-104	H6	8/15/2002	Central Yard	Shallow
MW-130	H6	10/25/2002	Central Yard	Shallow
MW-105	H7	10/1/2002	Central Yard	Shallow
MW-129	H8	9/25/2002	Central Yard	Shallow
MW-188	H8	6/4/2004	Off Site	Shallow
MW-216	H8	2/24/2005	Central Yard	Shallow
MW-217	H8	3/14/2005	Central Yard	Shallow
MW-220	H8	11/17/2005	Central Yard	Shallow
MW-232	H8	1/7/2006	Off Site	Shallow
MW-168	H9	2/6/2003	Central Yard	Shallow
MW-169R	H9	3/20/2003	Central Yard	Shallow
MW-185	H9	1/7/2004	Central Yard	Deep
MW-186	H9	1/12/2004	Central Yard	Shallow
MW-189	H9	6/6/2004	Off Site	Shallow
MW-191	H9	6/2/2004	Off Site	Shallow
MW-221	H9	1/7/2006	Off Site	Shallow
MW-222	H9	1/7/2006	Off Site	Shallow
MW-223	H9	11/17/2005	Off Site	Shallow
MW-224	H9	11/21/2005	Off Site	Shallow
MW-225	H9	11/16/2005	Off Site	Shallow
MW-226	H9	11/16/2005	Off Site	Shallow
MW-0035	I5	3/19/1997	Main Yard	Shallow
MW-0043	I5	2/10/1998	East Yard	Shallow
MW-134	I5	8/16/2002	Main Yard	Shallow
MW-135	I5	8/16/2002	Main Yard	Shallow
MW-158	I5	11/4/2002	Main Yard	Shallow
A21TP1	I6	9/30/2002	Main Yard	Shallow
MW-145	I6	8/21/2002	East Yard	Shallow
MW-146	I6	8/21/2002	East Yard	Shallow
MW-173	I6	3/19/2003	East Yard	Shallow
MW-235	I6	12/5/2006	East Yard	Shallow
MW-236	I6	12/6/2006	East Yard	Shallow
MW-245	I6	12/6/2006	East Yard	Shallow
MW-294	I6	3/11/2009	East Yard	Shallow
MW-295	I6	3/11/2009	East Yard	Shallow
MW-296	I6	3/10/2009	East Yard	Shallow
MW-297	I6	3/11/2009	East Yard	Shallow
M51TP27	I7	11/11/2002	East Yard	Shallow
MW-14	I7	10/9/1991	East Yard	Shallow
MW-131R	J6	5/10/2016	East Yard	Shallow
MW-148	J6	8/21/2002	East Yard	Shallow
MW-174	J6	2/10/2003	East Yard	Shallow
MW-208	J6	12/15/2004	East Yard	Shallow
MW-246R	J6	5/11/2016	East Yard	Deep
M51TP28	J7	11/12/2002	East Yard	Shallow
MW-0073	J7	8/21/2000	East Yard	Shallow
MW-153	J7	8/26/2002	East Yard	Shallow
MW-193	J7	7/26/2007	East Yard	Shallow
MW-209	J7	12/15/2004	East Yard	Shallow
MW-227R	J7	12/17/2014	East Yard	Shallow
MW-228	J7	1/6/2012	East Yard	Deep
MW-229R	J7	12/17/2014	East Yard	Shallow
MW-247	J7	12/21/2006	East Yard	Deep
MW-248R	J7	7/27/2010	East Yard	Shallow
MW-249	J7	12/7/2006	East Yard	Shallow
MP-01R	K6	6/16/2016	East Yard	Shallow
MW-0090	K6	1/8/2002	East Yard	Shallow
MW-10	K6	10/4/1991	East Yard	Shallow
MW-172	K6	1/30/2003	East Yard	Shallow
MW-213	K6	12/20/2004	East Yard	Shallow
MW-250	K6	12/19/2006	East Yard	Deep
MW-251	K6	12/5/2006	East Yard	Shallow
MW-270	K6	1/16/2007	East Yard	Shallow
MW-271	K6	1/15/2007	East Yard	Shallow
MW-275	K6	9/27/2007	East Yard	Deep
MW-276	K6	10/1/2007	East Yard	Deep
MW-277	K6	10/3/2007	East Yard	Deep
MW-282	K6	3/20/2008	East Yard	Shallow
MW-283	K6	3/26/2008	East Yard	Deep
MW-284	K6	3/19/2008	East Yard	Shallow
MW-285	K6	3/27/2008	East Yard	Deep
MW-286	K6	3/20/2008	East Yard	Shallow
MW-287	K6	4/2/2008	East Yard	Deep
MW-288	K6	7/2/2008	East Yard	Shallow
MW-289	K6	7/15/2008	East Yard	Shallow
MW-290	K6	7/1/2008	East Yard	Shallow
MW-291	K6	6/30/2008	East Yard	Deep
MW-292R	K6	11/21/2012	East Yard	Shallow
MW-293R	K6	12/11/2012	East Yard	Deep
MW-305R	K6	12/4/2012	East Yard	Shallow
MW-316R	K6	12/5/2012	East Yard	Shallow
MW-317R	K6	12/4/2012	East Yard	Shallow
MW-141	K7	8/27/2002	East Yard	Shallow
MW-142	K7	8/19/2002	East Yard	Shallow
MW-143	K7	8/28/2002	East Yard	Shallow
MW-157	K7	9/5/2002	East Yard	Shallow
MW-178	K7	3/17/2003	East Yard	Deep
MP-02R	L5	6/15/2016	East Yard	Shallow
MP-04RR	L5	6/15/2016	East Yard	Shallow
MP-03R	L6	6/17/2016	East Yard	Shallow
MW-132R	L6	6/17/2016	East Yard	Shallow
MW-150	L6	8/22/2002	East Yard	Shallow
MW-214R	L6	6/13/2016	East Yard	Shallow
MW-252R	L6	6/15/2016	East Yard	Deep
MW-253	L6	12/8/2006	East Yard	Shallow
MW-144	L7	8/20/2002	East Yard	Shallow
MW-149	L7	8/20/2002	East Yard	Shallow
MW-155R	L7	11/7/2014	East Yard	Shallow
MW-171	L7	2/4/2003	East Yard	Shallow
MW-175	L7	2/4/2003	East Yard	Shallow
MW-254	L7	12/8/2006	East Yard	Shallow
MW-255	L7	12/15/2006	East Yard	Deep
MW-306	L7	11/9/2009	East Yard	Shallow
MW-151	L8	8/28/2002	East Yard	Shallow
MW-156R	L8	11/10/2014	East Yard	Shallow
MW-256	L8	12/11/2006	East Yard	Shallow
MW-257	L8	12/11/2006	East Yard	Shallow

Current Monitoring Wells List 2				
LOCATION ID	GRID CELL	DATE INSTALLED	YARD	GW ZONE
MW-406	F2	5/9/2014	Main Yard	Shallow
MW-407	F2	5/16/2014	Main Yard	Shallow
MW-474	F2	11/10/2015	Main Yard	Shallow
MW-328	F3	12/9/2011	Main Yard	Deep
MW-336	F3	3/11/2013	Main Yard	Shallow
MW-337	F3	2/28/2013	Main Yard	Shallow
MW-338	F3	3/20/2013	Main Yard	Shallow
MW-339	F3	3/20/2013	Main Yard	Shallow
MW-340	F3	3/21/2013	Main Yard	Shallow
MW-350	F3	3/12/2013	Main Yard	Shallow
MW-351	F3	3/12/2013	Main Yard	Shallow
MW-353	F3	4/2/2013	Main Yard	Shallow
MW-378	F3	9/24/2013	Main Yard	Shallow
RW-02	F3	5/23/2001	Main Yard	Shallow
MW-354	F4	4/1/2013	Main Yard	Shallow
MW-355	F4	4/1/2013	Main Yard	Shallow
P-4	F4	9/18/1991	Main Yard	Shallow
P-5	F4	9/18/1991	Main Yard	Shallow
P-6	F4	9/19/1991	Main Yard	Shallow
P-9	F4	10/18/1991	Main Yard	Deep
MW-356	F5	3/29/2013	Main Yard	Shallow
MW-357	F5	3/29/2013	Main Yard	Shallow
MW-358	F6	3/28/2013	Main Yard	Shallow
MW-359	F6	4/16/2013	Central Yard	Shallow
MW-360	F6	4/15/2013	Central Yard	Shallow
MW-84RR	F6	10/23/2007	Former Yard	Shallow
MW-91R	F6	11/24/2015	Off Site	Shallow
MW-361	F7	4/17/2013	Central Yard	Shallow
MW-416	F7	4/24/2015	Central Yard	Shallow
MW-417	F7	4/25/2015	Central Yard	Shallow
NF-13	G1	7/9/1992	Main Yard	Shallow
MW-326	G2	12/8/2011	Main Yard	Deep
MW-538	G2	12/13/2017	Main Yard	Shallow
SP-EW-001	G2	8/5/2004	Main Yard	Shallow
SP-EW-002	G2	8/10/2004	Main Yard	Shallow
SP-EW-003	G2	8/9/2004	Main Yard	Shallow
MW-327	G3	12/9/2011	Main Yard	Deep
MW-374	G3	8/20/2013	Main Yard	Shallow
MW-375	G3	9/26/2013	Main Yard	Shallow
MW-376	G3	8/23/2013	Main Yard	Shallow
MW-377	G3	8/26/2013	Main Yard	Shallow
MW-391	G3	4/4/2014	Main Yard	Shallow
MW-392	G3	1/29/2014	Main Yard	Shallow
MW-393	G3	11/26/2013	Main Yard	Shallow
MW-395	G3	9/27/2013	Main Yard	Shallow
MW-398	G3	1/27/2014	Main Yard	Shallow
MW-405	G3	5/8/2014	Main Yard	Shallow
MW-415R	G3	6/20/2017	Main Yard	Shallow
MW-424	G3	7/28/2015	Main Yard	Shallow
MW-433R	G3	10/28/2016	Main Yard	Shallow
MW-489	G3	3/24/2016	Main Yard	Shallow
MW-539	G3	12/13/2017	Main Yard	Shallow
MW-540	G3	12/15/2017	Main Yard	Shallow
MW-541	G3	12/15/2017	Main Yard	Shallow
MW-542	G3	12/14/2017	Main Yard	Shallow
MW-543	G3	12/7/2017	Main Yard	Shallow
MW-544	G3	12/7/2017	Main Yard	Shallow
NF-10	G3	7/7/1992	Main Yard	Shallow
NF-10R	G3	4/10/2018	Main Yard	Shallow
RW-21	G3	5/23/2001	Main Yard	Shallow
SP-EW-004	G3	8/6/2004	Main Yard	Shallow
SP-EW-005	G3	8/11/2004	Main Yard	Shallow
MW-373	G4	8/2/2013	Main Yard	Shallow
MW-379	G4	9/23/2013	Main Yard	Shallow
MW-380	G4	8/27/2013	Main Yard	Shallow
MW-383	G4	8/29/2013	Main Yard	Shallow
MW-397	G4	1/24/2014	Main Yard	Shallow
P-1	G4	9/20/1991	Main Yard	Shallow
PZ-0016	G6	9/26/1996	Central Yard	Shallow
MW-362	G7	4/18/2013	Central Yard	Shallow
MW-363	G7	4/24/2013	Central Yard	Shallow
MW-418	G7	4/24/2015	Central Yard	Shallow
MW-364	G8	12/17/2004	Central Yard	Shallow
MW-365	G8	4/22/2013	Central Yard	Shallow
MW-529	G8	12/5/2017	Central Yard	Shallow
MW-530	G8	12/7/2017	Central Yard	Shallow
MW-533	G8	12/11/2017	Central Yard	Deep
MW-390	G9	9/30/2013	Central Yard	Shallow
RW-11	H3	4/3/2001	Main Yard	Shallow
P-2	H4	9/23/1991	Main Yard	Shallow
RW-31	H4	4/3/2001	Main Yard	Shallow
RW-32	H4	5/24/2001	Main Yard	Shallow
RW-33	H4	5/24/2001	Main Yard	Shallow
RW-34	H4	5/29/2001	Main Yard	Shallow
RW-35	H4	5/24/2001	Main Yard	Shallow
S40TP1	H4	11/11/2002	Main Yard	Shallow
MW-419	H5	9/9/2015	Main Yard	Shallow
MW-420	H5	9/2/2015	Main Yard	Shallow
MW-421	H5	8/21/2015	Main Yard	Shallow
MW-422	H5	8/19/2015	Main Yard	Shallow
MW-423	H5	8/20/2015	Main Yard	Shallow
MW-466	H5	10/28/2015	Main Yard	Shallow
MW-467	H5	11/4/2015	Main Yard	Shallow
MW-5	H5	9/23/1991	Main Yard	Shallow
P-10	H5	10/12/1991	Main Yard	Deep
PZ-0012	H5	4/24/1995	Main Yard	Shallow
RW-41	H5	4/4/2001	Main Yard	Shallow
RW-42	H5	5/29/2001	Main Yard	Shallow
MW-436R	H6	4/13/2017	Central Yard	Shallow
MW-439	H6	9/4/2015	Central Yard	Shallow
MW-509	H6	9/23/2016	Central Yard	Shallow
TP2-017	H6	5/7/2004	Central Yard	Shallow
MW-440	H7	9/3/2015	Central Yard	Shallow
MW-484	H7	7/6/2016	Central Yard	Shallow
MW-485	H7	7/5/2016	Central Yard	Shallow
MW-486	H7	7/5/2016	Central Yard	Shallow
MW-487	H7	7/7/2016	Central Yard	Shallow
MW-488	H7	7/6/2016	Central Yard	Shallow
TP2-019	H7	5/6/2004	Central Yard	Shallow
MW-335	H8	7/31/2012	Central Yard	Shallow
MW-367	H8	5/7/2013	Central Yard	Shallow
MW-368	H8	5/6/2013	Central Yard	Shallow
MW-369	H8	5/10/2013	Central Yard	Shallow
MW-483	H8	6/23/2016	Central Yard	Shallow
MW-513	H8	6/12/2017	Central Yard	Deep
MW-514	H8	7/25/2017	Central Yard	Deep
MW-515	H8	7/27/2017	Central Yard	Deep
MW-517	H8	7/17/2017	Central Yard	Shallow
MW-518	H8	6/9/2017	Central Yard	Shallow
MW-519	H8	7/25/2017	Central Yard	Shallow
MW-528	H8	12/7/2017	Central Yard	Shallow
MW-531	H8	4/9/2018	Central Yard	Deep
MW-532	H8	12/6/2017	Central Yard	Deep
MW-370	H9	5/14/2013	Central Yard	Deep
MW-371	H9	5/15/2013	Central Yard	Deep
MW-372R	H9	10/10/2014	Central Yard	Shallow
MW-520	I5	9/13/2017	Main Yard	Shallow
MW-521	I5	9/18/2017	Main Yard	Shallow
MW-408	I6	8/3/2015	East Yard	Shallow
MW-409R	I6	8/19/2016	East Yard	Shallow
MW-434R	I6	3/30/2017	Central Yard	Shallow
MW-435R	I6	4/14/2017	Central Yard	Shallow
MW-438	I6	9/3/2015	Central Yard	Shallow
MW-441R	I6	4/13/2017	Central Yard	Shallow
MW-442	I6	9/25/2015	East Yard	Shallow
MW-443	I6	9/11/2015	East Yard	Shallow
MW-444	I6	9/22/2015	East Yard	Shallow
MW-446R	I6	8/18/2016	East Yard	Shallow
MW-447	I6	9/30/2015	East Yard	Shallow
MW-464	I6	9/29/2015	East Yard	Shallow
MW-465	I6	10/9/2015	East Yard	Shallow
MW-491	I6	6/1/2016	East Yard	Shallow
MW-545	I6	3/26/2018	East Yard	Shallow
TP2-016	I6	5/7/2004	Main Yard	Shallow
TP2-018R	I6	4/14/2017	Central Yard	Shallow
MW-381	J6	9/25/2013	East Yard	Shallow
MW-386R	J6	5/12/2016	East Yard	Shallow
MW-387R	J6	5/10/2016	East Yard	Shallow
MW-388	J6	9/17/2013	East Yard	Shallow
MW-389	J6	9/18/2013	East Yard	Shallow
MW-490	J6	6/1/2016	East Yard	Shallow
MW-382	J7	10/1/2013	East Yard	Shallow
MW-384	J7	10/4/2013	East Yard	Shallow
RW-61R	J7	12/15/2014	East Yard	Shallow
MW-6	J8	9/26/1991	East Yard	Shallow
P-7	J8	10/23/1991	East Yard	Deep
MW-504	K5	7/14/2016	East Yard	Shallow
MW-318RR	K6	3/25/2016	East Yard	Shallow
MW-319R	K6	11/20/2012	East Yard	Shallow
MW-321	K6	12/3/2010	East Yard	Shallow
MW-330	K6	12/3/2012	East Yard	Shallow
MW-331	K6	11/29/2012	East Yard	Shallow
MW-332	K6	11/20/2012	East Yard	Shallow
MW-341	K6	12/18/2012	East Yard	Shallow
MW-342	K6	12/6/2012	East Yard	Shallow
MW-343	K6	11/20/2012	East Yard	Shallow
MW-448	K6	11/16/2015	East Yard	Shallow
MW-449	K6	11/16/2015	East Yard	Shallow
MW-450	K6	11/13/2015	East Yard	Shallow
MW-451	K6	11/12/2015	East Yard	Shallow
MW-452	K6	11/12/2015	East Yard	Shallow
MW-453	K6	10/23/2015	East Yard	Deep
MW-456	K6	10/7/2015	East Yard	Shallow
MW-457	K6	10/5/2015	East Yard	Shallow
MW-458	K6	10/8/2015	East Yard	Shallow
MW-459	K6	10/6/2015	East Yard	Shallow
MW-460	K6	10/8/2015	East Yard	Shallow
MW-462	K6	10/5/2015	East Yard	Shallow
MW-463	K6	10/7/2015	East Yard	Shallow
MW-475	K6	9/16/2016	East Yard	Shallow
MW-476	K6	10/7/2016	East Yard	Deep
MW-499	K6	10/12/2016	East Yard	Deep
MW-500	K6	10/11/2016	East Yard	Deep
MW-501	K6	10/5/2016	East Yard	Deep
MW-506	K6	8/26/2016	East Yard	Shallow
MW-508	K6	8/24/2016	East Yard	Shallow
MW-525	K6	11/3/2017	East Yard	Deep
MW-526	K6	11/1/2017	East Yard	Deep
MW-9	K6	10/8/1991	East Yard	Shallow
SB-16	K6	8/22/1991	East Yard	Shallow
MW-399	K7	10/12/2015	East Yard	Shallow
MW-399R	K7	2/28/2018	East Yard	Shallow
MW-400	K7	9/30/2016	East Yard	Shallow
MW-401	K7	6/10/2015	East Yard	Shallow
MW-401R	K7	10/16/2017	East Yard	Shallow
MW-455	K7	11/17/2015	East Yard	Shallow
MW-473	K7	11/18/2015	East Yard	Shallow
MW-496	K7	8/4/2016	East Yard	Shallow
MW-510	K7	11/9/2016	East Yard	Shallow
MW-511	K7	11/10/2016	East Yard	Shallow
MW-512	K7	2/15/2017	East Yard	Shallow
MW-430	K8	8/10/2015	East Yard	Shallow
MW-469	K8	11/13/2015	East Yard	Shallow
MW-470	K8	11/17/2015	East Yard	Shallow
MW-478	K8	3/17/2016	East Yard	Shallow
MW-7	K8	9/24/1991	East Yard	Shallow
P-8	K8	10/22/1991	East Yard	Deep
MW-329R	L5	6/13/2016	East Yard	Shallow
SB-15R	L5	10/31/2013	East Yard	Shallow
MW-461	L6	10/6/2015	East Yard	Shallow
MW-494	L6	8/5/2016	East Yard	Shallow
SB-13B	L6	8/15/1991	East Yard	Shallow
SB-14	L6	8/23/1991	East Yard	Shallow
SB-17	L6	8/16/1991	East Yard	Shallow
MW-495	L7	8/17/2016	East Yard	Shallow
P14TP1R	L7	11/5/2015	East Yard	Shallow
P15TP1	L7	11/10/2009	East Yard	Shallow
P15TP3	L7	11/17/2009	East Yard	Shallow
P15TP4	L7	11/10/2009	East Yard	Shallow
P15TP5	L7	11/17/2009	East Yard	Shallow
RW-81	L7	6/1/2001	East Yard	Shallow
RW-82	L7	5/31/2001	East Yard	Shallow
RW-83	L7	5/30/2001	East Yard	Shallow
RW-83R	L7	3/1/2018	East Yard	Shallow
RW-92	L7	5/30/2001	East Yard	Shallow
RW-93	L7	5/30/2001	East Yard	Shallow
RW-94	L7	5/30/2001	East Yard	Shallow
MW-347	L8	3/22/2013	East Yard	Shallow
MW-348	L8	7/31/2013	East Yard	Shallow
MW-385	L8	9/19/2013	East Yard	Shallow
MW-410	L8	7/31/2014	East Yard	Shallow
MW-411	L8	8/1/2014	East Yard	Shallow
MW-412	L8	8/1/2014	East Yard	Shallow
MW-413	L8	7/31/2014	East Yard	Shallow
MW-425	L8	8/12/2015	East Yard	Shallow
MW-426	L8	8/12/2015	East Yard	Shallow
MW-427	L8	8/6/2015	East Yard	Shallow
MW-428	L8	8/4/2015	East Yard	Shallow
MW-429	L8	8/5/2015	East Yard	Shallow
MW-431	L8	8/7/2015	East Yard	Shallow
MW-432	L8	8/4/2015	East Yard	Shallow

Current Monitoring Wells List 3				
LOCATION ID	GRID CELL	DATE INSTALLED	YARD	GW ZONE
MW-468	L8	11/17/2015	East Yard	Shallow
MW-471	L8	11/16/2015	East Yard	Shallow
MW-472	L8	11/13/2015	East Yard	Shallow
MW-479	L8	3/17/2016	East Yard	Shallow
MW-480	L8	3/17/2016	East Yard	Shallow
MW-481	L8	8/16/2016	East Yard	Shallow
MW-482	L8	8/17/2016	East Yard	Shallow
MW-522	L8	9/21/2017	East Yard	Shallow
MW-523	L8	9/21/2017	East Yard	Shallow
MW-524	L8	10/17/2017	East Yard	Shallow
RW-91	L8	6/1/2001	East Yard	Shallow

Abandoned Monitoring Wells List				
LOCATION ID	GRID CELL	DATE ABANDONED	YARD	GW ZONE
MW-19	B6	11/21/2005	Former Yard	Shallow
MW-17	B6	11/21/2005	Former Yard	Shallow
MW-1	B8	3/30/2006	Former Yard	Shallow
MW-18	C6	11/21/2005	Former Yard	Shallow
MW-22	C6	11/21/2005	Former Yard	Shallow
MW-15	C6	11/21/2005	Former Yard	Shallow
MW-16	C6	11/21/2005	Former Yard	Shallow
MW-0040	D7	3/30/2006	Former Yard	Shallow
LF-1B	D8	3/30/2006	Former Yard	Shallow
LF-3	D8	3/30/2006	Former Yard	Shallow
LF-5	D8	3/30/2006	Former Yard	Shallow
LF-6	D8	3/30/2006	Former Yard	Shallow
MW-0025	D8	3/30/2006	Former Yard	Shallow
MW-165	E2	9/19/2016	Main Yard	Shallow
MW-166	E2	9/19/2016	Main Yard	Shallow
MW-0038	E6	8/19/1998	Former Yard	Shallow
MW-0074	E6	10/30/2003	Former Yard	Shallow
MW-0047	E6	10/30/2003	Former Yard	Shallow
MW-0082	E6	10/30/2003	Former Yard	Shallow
MW-0083	E6	10/30/2003	Former Yard	Shallow
MW-0086	E6	10/31/2003	Former Yard	Shallow
MW-0087	E6	10/31/2003	Former Yard	Shallow
MW-0096	E6	10/31/2003	Former Yard	Shallow
MW-0097	E6	10/31/2003	Former Yard	Shallow
MW-0052	E6	9/16/2004	Former Yard	Shallow
MW-0075R	E6	9/16/2004	Former Yard	Shallow
MW-0077	E6	9/16/2004	Former Yard	Shallow
MW-0023	E6	3/30/2006	Former Yard	Shallow
MW-11	E6	3/30/2006	Former Yard	Shallow
PZ-0017	E6	3/30/2006	Former Yard	Shallow
MW-0050	E6	--	Former Yard	Shallow
MW-0036	E6	--	Former Yard	Shallow
MW-0049	E6	--	Former Yard	Shallow
MW-0053	E6	--	Former Yard	Shallow
MW-0075	E6	--	Former Yard	Shallow
MW-0076	E6	--	Former Yard	Shallow
MW-0092	E6	--	Off Site	Shallow
MW-0093	E6	--	Off Site	Shallow
MW-0041	E7	10/30/2003	Former Yard	Shallow
MW-0080	E7	10/30/2003	Former Yard	Shallow
MW-0098	E7	10/31/2003	Former Yard	Shallow
NF-5A	F2	7/8/1993	Main Yard	Shallow
NF-6	F2	7/8/1993	Main Yard	Shallow
MW-121	F2	11/9/2015	Main Yard	Shallow
MW-334	F2	11/9/2015	Main Yard	Shallow
MW-404	F2	3/22/2017	Main Yard	Shallow
MW-333	F2	4/14/2017	Main Yard	Shallow
NF-12	F2	--	Main Yard	Shallow
NF-3D	F2	--	Main Yard	Shallow
NF-5B	F2	--	Main Yard	Shallow
NF-9C	F3	7/8/1993	Main Yard	Deep
MW-116	F3	6/11/2012	Main Yard	Shallow
MW-234	F3	6/11/2012	Main Yard	Shallow
NF-11	F3	6/11/2012	Main Yard	Shallow
MW-269	F3	6/27/2012	Main Yard	Shallow
MW-210	F3	6/27/2014	Main Yard	Shallow
MW-211	F3	4/25/2017	Main Yard	Shallow
MW-234R	F3	8/3/2017	Main Yard	Shallow
MW-116R	F3	--	Main Yard	Shallow
MW-315	F3	--	Main Yard	Shallow
RW-01	F3	--	Main Yard	Shallow
MW-0037	F6	1/7/2002	Central Yard	Shallow
MW-0084	F6	12/12/2002	Former Yard	Shallow
MW-0042	F6	10/30/2003	Former Yard	Shallow
MW-0048	F6	10/30/2003	Former Yard	Shallow
MW-0084R	F6	10/31/2003	Former Yard	Shallow
MW-0085	F6	10/31/2003	Former Yard	Shallow
MW-0094	F6	10/31/2003	Former Yard	Shallow
MW-0095	F6	10/31/2003	Former Yard	Shallow
MW-0037R	F6	8/22/2016	Central Yard	Shallow
MW-0054	F6	8/22/2016	Central Yard	Shallow
MW-177	F6	--	Off Site	Shallow
MW-0091	F6	--	Off Site	Shallow
MW-0081	F7	1/7/2002	Former Yard	Shallow
MW-161	F7	12/12/2002	Former Yard	Shallow
MW-0068	F7	10/30/2003	Former Yard	Shallow
MW-0069	F7	10/30/2003	Former Yard	Shallow
MW-0078	F7	10/30/2003	Former Yard	Shallow
MW-0079	F7	10/30/2003	Former Yard	Shallow
MW-0088	F7	10/31/2003	Former Yard	Shallow
MW-160	F7	10/31/2003	Former Yard	Shallow
MW-163	F7	10/31/2003	Former Yard	Shallow
MW-0099	F7	10/31/2003	Former Yard	Shallow
MW-100	F7	10/31/2003	Former Yard	Shallow
MW-162	F7	10/31/2003	Former Yard	Shallow
MW-0045	G10	10/11/2013	Central Yard	Shallow
S43TP9	G2	3/18/2015	Main Yard	Shallow
NF-4D	G2	--	Main Yard	Shallow
NF-9A	G3	7/8/1993	Main Yard	Deep
NF-9B	G3	10/2/1996	Main Yard	Shallow
MW-180	G3	10/7/2003	Main Yard	Deep
MW-0064	G3	10/17/2012	Main Yard	Shallow
MW-307	G3	11/3/2015	Main Yard	Shallow
MW-308	G3	11/3/2015	Main Yard	Shallow
MW-309	G3	11/3/2015	Main Yard	Shallow
MW-310	G3	11/3/2015	Main Yard	Shallow
MW-311	G3	11/3/2015	Main Yard	Shallow
MW-312	G3	11/3/2015	Main Yard	Shallow
MW-123	G3	6/23/2016	Main Yard	Shallow
MW-268	G3	6/23/2016	Main Yard	Shallow
MW-415	G3	6/23/2016	Main Yard	Shallow
MW-433	G3	6/23/2016	Main Yard	Shallow
MW-258	G3	7/11/2016	Main Yard	Shallow
MW-278	G3	--	Main Yard	Shallow
MW-403	G4	2/27/2018	Main Yard	Deep
MW-352	G4	2/27/2018	Main Yard	Shallow
MW-396	G4	2/27/2018	Main Yard	Shallow
PZ-0014	G5	4/2/1996	Main Yard	Shallow
MW-0055	G6	8/22/2016	Central Yard	Shallow
MW-0056	G6	10/17/2016	Central Yard	Shallow
MW-106	G7	--	Central Yard	Shallow
MW-0044	G8	11/8/2013	Central Yard	Shallow
MW-102	G8	11/8/2013	Central Yard	Shallow
MW-219	G8	11/8/2013	Central Yard	Shallow
MW-101	G9	11/8/2013	Central Yard	Shallow
MW-170	G9	11/25/2013	Off Site	Shallow
MW-184	G9	2/10/2014	Central Yard	Deep
MW-0026	H1	--	h Field Exten	Shallow
NF-7	H2	7/8/1993	Main Yard	Shallow
NF-17	H2	12/12/2001	Main Yard	Shallow
NF-14	H2	10/13/2004	Main Yard	Shallow
NF-8	H3	10/2/1996	Main Yard	Shallow
NF-16	H3	10/13/2004	Main Yard	Shallow
MW-0031	H3	--	Main Yard	Shallow
NF-15	H3	--	Main Yard	Shallow
MW-0071	H4	4/15/2014	Main Yard	Shallow
MW-243	H4	12/15/2015	Main Yard	Shallow
MW-127	H4	2/17/2016	Main Yard	Shallow
MW-238	H4	2/13/2017	Main Yard	Deep
MW-117	H4	2/13/2017	Main Yard	Shallow
MW-260	H4	2/13/2017	Main Yard	Shallow
MW-261	H4	2/13/2017	Main Yard	Shallow
MW-267	H4	2/13/2017	Main Yard	Shallow
PZ-0015	H5	4/2/1996	Main Yard	Shallow
MW-436	H6	11/18/2016	Central Yard	Shallow
MW-0046	H6	--	Off Site	Shallow
PZ-0011	H6	--	Main Yard	Shallow
MW-372	H9	11/25/2013	Central Yard	Shallow
MW-0027	I1	--	h Field Exten	Shallow
MW-0028	I1	--	h Field Exten	Shallow
MW-152	I6	2/17/2016	East Yard	Shallow
MW-445	I6	4/5/2016	East Yard	Shallow
MW-409	I6	8/1/2016	East Yard	Shallow
MW-446	I6	8/1/2016	East Yard	Shallow
MW-434	I6	11/18/2016	Central Yard	Shallow
MW-435	I6	11/18/2016	Central Yard	Shallow
MW-441	I6	11/18/2016	Central Yard	Shallow
TP2-018	I6	11/18/2016	Central Yard	Shallow
MW-0051	I7	--	East Yard	Shallow
MW-131	J6	3/17/2016	East Yard	Shallow
MW-386	J6	3/17/2016	East Yard	Shallow
MW-387	J6	3/17/2016	East Yard	Shallow
MW-246	J6	3/18/2016	East Yard	Deep
MW-248	J7	7/28/2010	East Yard	Shallow
MW-272	J7	11/24/2010	East Yard	Shallow
MW-227	J7	--	East Yard	Shallow
MW-229	J7	--	East Yard	Shallow
P-3	J7	--	East Yard	Shallow
RW-61	J7	--	East Yard	Shallow
A31TP2	K6	12/7/2012	East Yard	Shallow
MW-318	K6	12/7/2012	East Yard	Shallow
MW-318R	K6	3/24/2016	East Yard	Shallow
MW-293	K6	--	East Yard	Deep
MW-292	K6	--	East Yard	Shallow
MW-305	K6	--	East Yard	Shallow
MW-316	K6	--	East Yard	Shallow
MW-317	K6	--	East Yard	Shallow
MW-319	K6	--	East Yard	Shallow
MW-8	K8	--	East Yard	Shallow
SB-15	L5	11/11/2013	East Yard	Shallow
MW-215	L5	2/18/2016	East Yard	Shallow
MW-329	L5	2/19/2016	East Yard	Shallow
SB-13A	L6	7/8/1993	East Yard	Deep
SB-10	L6	2/18/2016	East Yard	Deep
MW-214	L6	2/18/2016	East Yard	Shallow
MW-132	L6	2/19/2016	East Yard	Shallow
MW-252	L6	2/22/2016	East Yard	Deep
MW-155	L7	11/28/2012	East Yard	Shallow
RW-101	L7	--	East Yard	Shallow
P14TP1	L7	--	East Yard	Shallow
MW-156	L8	11/28/2012	East Yard	Shallow



NO.	REVISION	BY	APPR.	DATE
1	Color coded well and piezometer location to depict the project that the location is sampled for. Revised well table to include sample project and sample frequency information.	MTK	MTK	5/26/2011
2	Added: MW-316 through MW-335. Abandoned: NF-11, MW-259 & MW-116R.	MTK	MTK	10/5/2012
3	Added: "CMI" to sample plan for MW-0057, MW-114-MW-115, MW-120, & MW-233. Abandoned: MW-0064, A31TP2, and MW-318.	MTK	MTK	1/3/2013
4	Added: MW-292R, MW-293R, MW-305R, MW-316R, MW-319R, MW-330, MW-333, MW-341-MW-343, MW-353-MW-365, &MW-0031R. Abandoned: MW-155-MW-156. Removed abandoned wells and 'Northing' & 'Easting' with 'Date Installed' & 'Date Abandoned' in tables.	SGF	MTK	8/20/2013
5	Added: MW-337, MW-348, MW-352, MW-385, MW-389, MW-396-MW-398 & SB-15R. Abandoned: MW-8, MW-21, MW-0026-MW-0028, MW-004-MW-0045, MW-0051, MW-101-MW-102, MW-170, MW-184, MW-219, MW-372, RW-01 & SB-15. Removed abandoned wells and 'Northing' & 'Easting' with 'Date Installed' & 'Date Abandoned' in tables.	SGF	MTK	4/8/2014
6	Added: MW-391, MW-393, MW-403-MW-407. Abandoned: MW-201. Removed Shops Building.	SGF	MTK	7/17/2014
7	Added: MW-391, MW-MW-393, MW-403-MW-407. Abandoned: MW-227, MW-229, MW-272, MW-315 and RW-61.	SGF	MTK	4/23/2015
8	Added new current and abandoned monitoring wells. Revised tables to separate current and abandoned wells.	SGF	MTK	1/19/2016
9	Added new current and abandoned monitoring wells.	CBO	TDU	4/5/2017
10	Added new current and abandoned monitoring wells.	CBO	TDU	6/19/2018

Sitewide Monitoring Well Location Map

CHEVRON
ENVIRONMENTAL MANAGEMENT COMPANY
PERTH AMBOY, NEW JERSEY

PROJECT #:	DATE:	DWN:	CHKD:	FIG #:
450852-02000	8/21/2018	CBO	EG	4

Path: C:\Projects\Chevron\DMS\Projects\Sitewide MNA\Sitewide\Figures\Sitewide MNA - Groundwater Benzene - Figure 4 Grid Location Map.mxd

LEGEND

- Shallow Monitoring Well
- Shallow Monitoring Well Not Used in Contouring
- Shallow Groundwater Surface Elevation Contour
- Inferred Shallow Groundwater Surface Elevation Contour
- Sheet Piling
- Slurry Wall
- Water Bodies

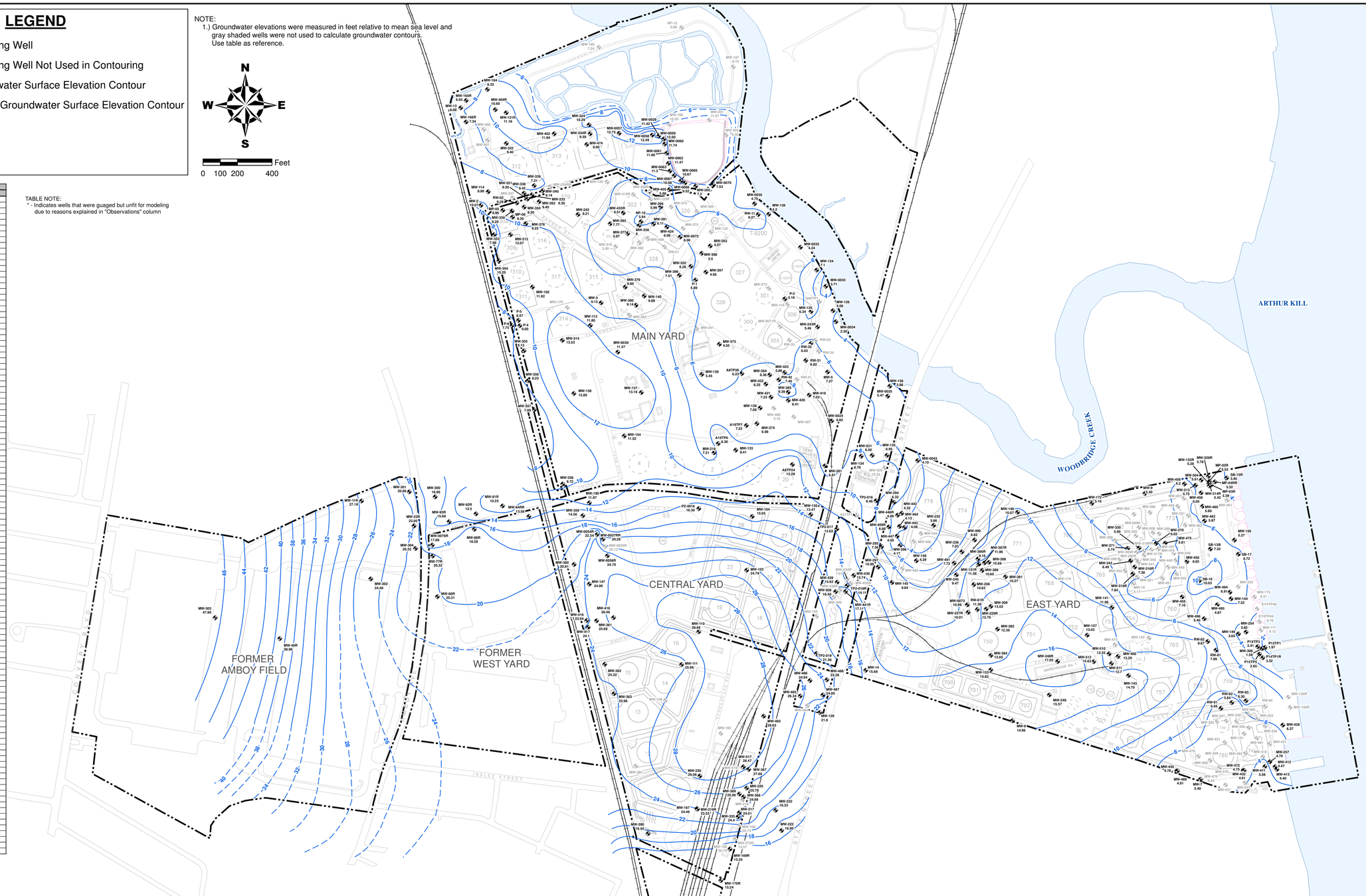
NOTE:
1.) Groundwater elevations were measured in feet relative to mean sea level and gray shaded wells were not used to calculate groundwater contours. Use table as reference.

N
W E
S

0 100 200 400 Feet

Wells Not Gauged or Used for Contouring	
Well ID	Observation
A21TP1*	Elevation is anomalous
EY4TP48	Unable to locate well
EY4TP49*	Well is hydraulically isolated within sheet pile cell
MW-0055R*	Elevation is anomalous
MW-0071R	Well was inaccessible
MW-0090	Unable to gauge due to area flooding
MW-10*	Elevation is anomalous
MW-105	Unable to gauge due to area flooding
MW-108	Well was inaccessible due to Facility operations
MW-118	Unable to gauge due to area flooding
MW-120	Unable to gauge due to area flooding
MW-122	Well was covered by equipment
MW-123R	Unable to gauge due to area flooding
MW-142	Well was buried
MW-151	Well was inaccessible due to Facility operations
MW-155R	Unable to gauge due to area flooding
MW-156R	Unable to gauge due to area flooding
MW-168*	Elevation is anomalous
MW-171*	Well is hydraulically isolated within sheet pile cell
MW-174	Unable to gauge due to area flooding
MW-175*	Well is hydraulically isolated within sheet pile cell
MW-179	Unable to gauge due to area flooding
MW-183	Well was covered by equipment
MW-186*	Elevation is anomalous
MW-195*	Elevation is anomalous
MW-197*	Elevation is anomalous
MW-199*	Well is hydraulically isolated within sheet pile cell
MW-201*	Well is hydraulically isolated within sheet pile cell
MW-203*	Well is hydraulically isolated within sheet pile cell
MW-216	Well was buried
MW-234RR	Well was not gauged
MW-241	Well was covered by equipment
MW-251	Unable to gauge due to area flooding
MW-253	Well was covered by equipment
MW-256	Unable to gauge due to area flooding
MW-268R	Well could not be located
MW-271	Well was inaccessible
MW-282	Unable to gauge due to area flooding
MW-284	Unable to gauge due to area flooding
MW-286	Unable to gauge due to area flooding
MW-288	Unable to gauge due to area flooding
MW-289	Well was inaccessible
MW-290	Unable to gauge due to area flooding
MW-292R	Unable to gauge due to area flooding
MW-305R	Unable to gauge due to area flooding
MW-317R	Unable to gauge due to area flooding
MW-318RR	Unable to gauge due to area flooding
MW-321	Unable to gauge due to area flooding
MW-331	Unable to gauge due to area flooding
MW-332	Unable to gauge due to area flooding
MW-337	Unable to gauge due to area flooding
MW-341	Unable to gauge due to area flooding
MW-342	Well was inaccessible
MW-347	Well was inaccessible due to Facility operations
MW-348	Well was inaccessible due to Facility operations
MW-364	Unable to gauge due to area flooding
MW-374	Unable to gauge due to area flooding
MW-375	Unable to gauge due to area flooding
MW-376*	Elevation is anomalous
MW-383	Unable to gauge due to area flooding
MW-385	Well was inaccessible due to Facility operations
MW-392	Unable to gauge due to area flooding
MW-395	Well could not be located
MW-406	Well could not be located
MW-407	Well was inaccessible
MW-408	Well was inaccessible
MW-410	Well was inaccessible due to Facility operations
MW-415R	Well could not be located
MW-425	Well was inaccessible due to Facility operations
MW-426	Well was inaccessible due to Facility operations
MW-427	Well was inaccessible due to Facility operations
MW-429	Well was inaccessible due to Facility operations
MW-431	Well was inaccessible due to Facility operations
MW-434R*	Elevation is anomalous
MW-435R	Unable to gauge due to area flooding
MW-436R	Unable to gauge due to area flooding
MW-440	Unable to gauge due to area flooding
MW-444	Unable to gauge due to area flooding
MW-448	Unable to gauge due to area flooding
MW-449	Unable to gauge due to area flooding
MW-451	Unable to gauge due to area flooding
MW-452	Unable to gauge due to area flooding
MW-457	Unable to gauge due to area flooding
MW-459	Unable to gauge due to area flooding
MW-461	Unable to gauge due to area flooding
MW-462	Unable to gauge due to area flooding
MW-465	Unable to gauge due to area flooding
MW-466*	Elevation is anomalous
MW-467	Well could not be located
MW-468	Well was inaccessible due to Facility operations
MW-470*	Elevation is anomalous
MW-471	Unable to gauge due to area flooding
MW-473	Unable to gauge due to area flooding
MW-476	Unable to gauge due to area flooding
MW-478	Well was inaccessible due to Facility operations
MW-479	Well was inaccessible due to Facility operations
MW-480	Well was inaccessible due to Facility operations
MW-481	Well was inaccessible due to Facility operations
MW-482	Well was inaccessible due to Facility operations
MW-484	Well was covered
MW-489	Unable to gauge due to area flooding
MW-506	Unable to gauge due to area flooding
MW-508	Unable to gauge due to area flooding
MW-519	Unable to gauge due to area flooding
MW-520*	Elevation is anomalous
MW-523	Unable to gauge due to area flooding
NF-13*	Elevation is anomalous
RW-21	Unable to gauge due to area flooding
RW-33	Well was inaccessible
RW-34	Well was inaccessible
RW-35	Well was inaccessible
RW-41	Well was inaccessible
RW-94	Unable to gauge due to area flooding
S40TP1	Well could not be located

TABLE NOTE:
* - Indicates wells that were guaged but unfit for modeling due to reasons explained in "Observations" column



SITEWIDE GROUNDWATER CONTOUR
SHALLOW ZONE
10/30/2017
MONITORED ATTENUATION IMPLEMENTATION WORK PLAN

Chevron
CHEVRON
ENVIRONMENTAL MANAGEMENT COMPANY
PERTH AMBOY, NEW JERSEY

PROJECT #:	DATE:	DWN:	CHKD:	FIG NO.:
450915-02000	6/18/2018	ADW	CC	5

Path: \\NJSOM02FS01\Projects\Projects\Chevron\DMS\Projects\Sitewide MNA\Sitewide\Figures\Sitewide MNA - Groundwater Benzene - Figure 5 - 2017 Q4 Shallow Groundwater Contours.mxd

LEGEND

- Deep Monitoring Well
- Deep Monitoring Well Not Used in Contouring
- Deep Groundwater Surface Elevation Contour
- Inferred Deep Groundwater Surface Elevation Contour
- Property Line
- Sheet Piling
- Slurry Wall
- Water Bodies

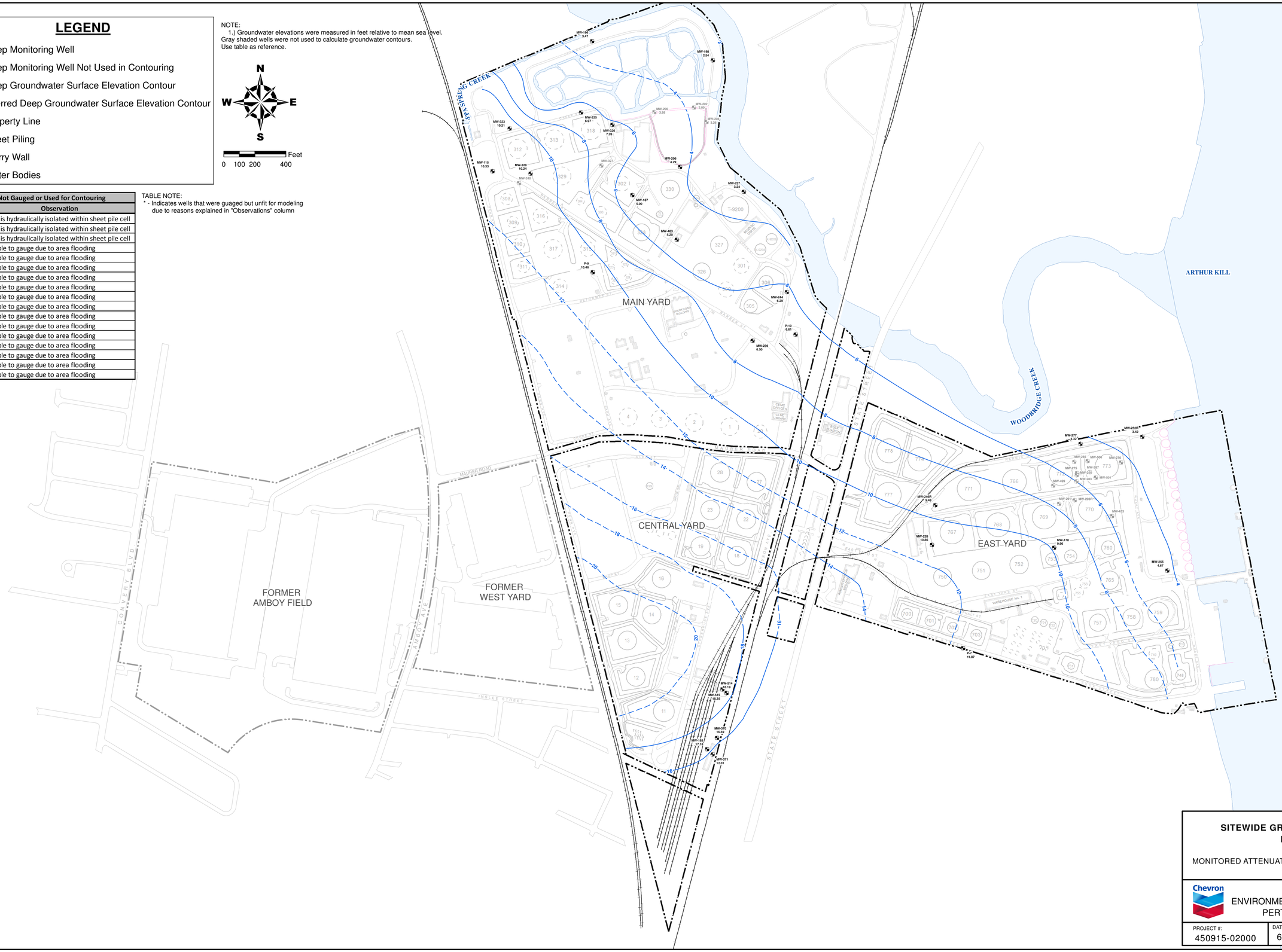
NOTE:
1.) Groundwater elevations were measured in feet relative to mean sea level.
Gray shaded wells were not used to calculate groundwater contours.
Use table as reference.

N
W E
S

0 100 200 400 Feet

Wells Not Gauged or Used for Contouring	
Well ID	Observation
MW-200*	Well is hydraulically isolated within sheet pile cell
MW-202*	Well is hydraulically isolated within sheet pile cell
MW-204*	Well is hydraulically isolated within sheet pile cell
MW-240	Unable to gauge due to area flooding
MW-250	Unable to gauge due to area flooding
MW-275	Unable to gauge due to area flooding
MW-276	Unable to gauge due to area flooding
MW-283	Unable to gauge due to area flooding
MW-285	Unable to gauge due to area flooding
MW-287	Unable to gauge due to area flooding
MW-291	Unable to gauge due to area flooding
MW-293R	Unable to gauge due to area flooding
MW-327	Unable to gauge due to area flooding
MW-453	Unable to gauge due to area flooding
MW-499	Unable to gauge due to area flooding
MW-500	Unable to gauge due to area flooding
MW-501	Unable to gauge due to area flooding

TABLE NOTE:
* - Indicates wells that were guaged but unfit for modeling due to reasons explained in "Observations" column



SITEWIDE GROUNDWATER CONTOUR
DEEP ZONE
10/30/2017
MONITORED ATTENUATION IMPLEMENTATION WORK PLAN

CHEVRON
ENVIRONMENTAL MANAGEMENT COMPANY
PERTH AMBOY, NEW JERSEY

PROJECT #:	DATE:	DWN:	CHKD:	FIG NO.:
450915-02000	6/18/2018	ADW	CC	6

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LNAPL PROPERTIES			
LNAPL Area Name	Type of LNAPL	Specific Gravity	Viscosity
SWMU 8	Various isomers of C12 alkylated benzenes including dodecylbenzene with plasticizers including dioctylphthalate and triarylphosphates, mixed with highly weathered crude oil.	0.9075	7.631b
SWMU 40	[1]No. 2 diesel range distillate and crude oil.	NM	NM
SWMU 41	[1]Refinery intermediate in gas oil range.	NM	NM
SWMU 43	Crude oil, gasoline and diesel.	0.9047 & 0.88	21.7d & 7.832b
AOC 8-NF6	Type 1 - mixture of diesel range distillate, an alkylate and a heavy oil.	0.9489	54.7a
	Type 2 - weathered crude oil.	0.9525	319.8a
	[1]Type 3 - No.2 diesel range mixed with a heavy oil.	NM	NM
	[1]Type 4 - kerosene range mixed with diesel and gas oil.	NM	NM
AOC 19	Weathered crude oil.	0.9435	260.6a
NF2	Type 1 - comprises of asphalt, and a mixture of a heavy oil, diesel range distillate and gasoline.	0.9844	20349a
	Type 2 - mixture of FCC light cycle oil, <3% gasoline and <1% heavy oil.	0.9252	11.92a
	Type 3 - 94% weathered gasoline and 6% heavy oil possibly mixed with diesel range distillate.	NM	NM
NF3	Heavy oil, gasoline and a diesel range distillate.	0.905	20.8a
NF4	Heavy oil, naphtha and a diesel range distillate.	0.9141	15.09b
NF5	Heavy oil, possibly crude, mixed with upto 40% gasoline and diesel.	0.9283	164.2a
AOC 25	North - gas oil.	0.9756	38.37c
	South - 44% diesel fuel, 33% gasoline and 22% lube oil.	0.8723	0.365b
SWMU 42	Mixture of a light cycle oil, heavy gas oil and 10% gasoline.	NM	NM
EY1	Weathered gasoline.	0.7972	0.717b
EY3	94% gasoline and 6% biodegraded distillate.	0.7864	0.717b
EY4a	Predominantly diesel range distillate mixed with gasoline and a heavy oil.	0.9369	43.3b
EY4b	Diesel range distillate and a heavy oil.	0.9049	20.7a
AOC 28	Not fingerprinted due to insufficient volume required for analysis.	NM	NM
AOC 29	Weathered No. 2 diesel oil.	0.9182	NM
State Street Parking Lot	No. 2 diesel with trace amount of gasoline.	0.87	2.963b
PAOC 15	No. 2 diesel with presence of gas oil.	0.89	120.361b
AOC 31	Weathered gasoline.	0.79	0.7564b
SWMU 10	NM	NM	NM

Notes:
a = Centistokes at 20 °C
b = Centistokes at 40 °C
c = Centistokes at 100 °C
d = Centistokes at 10 °C
NM = Not Measured because of insufficient volume or media analyzed.
[1] Fingerprinting based upon soil samples due to insufficient LNAPL required for analysis.

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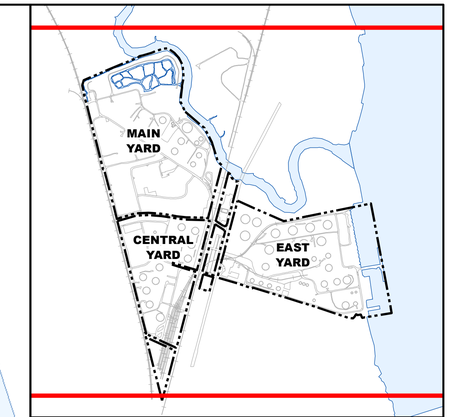


Legend

- Shallow Monitoring Well - Benzene < 1 ug/L
- Shallow Monitoring Well - Benzene >= 1 ug/L
- Shallow Monitoring Well - Benzene > 10 ug/L
- Shallow Monitoring Well - Benzene > 100 ug/L
- Shallow Monitoring Well - Benzene > 1000 ug/L
- Groundwater Benzene > 1 ug/L
- Groundwater Benzene > 10 ug/L
- Groundwater Benzene > 100 ug/L
- Groundwater Benzene > 1000 ug/L
- Property Line
- Railroad
- Buildings

GENERAL NOTE:
Benzene groundwater plumes were created using the Inverse Distance Weighting interpolation method.

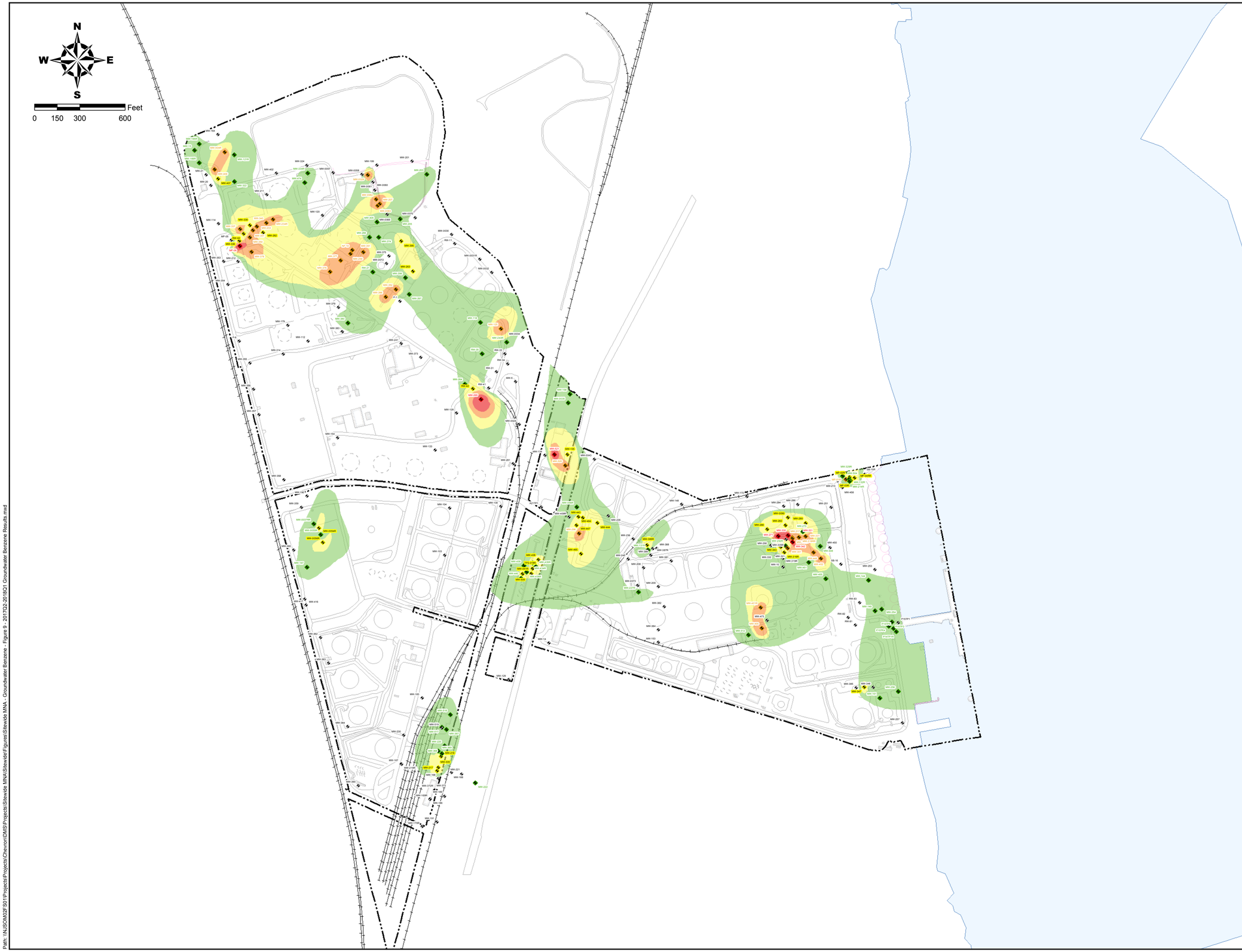
SITEWIDE 2008
SHALLOW MONITORING WELL
BENZENE RESULTS

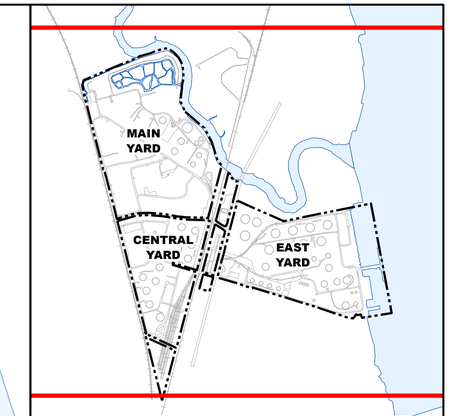
MONITORED ATTENUATION IMPLEMENTATION WORK PLAN

CHEVRON
ENVIRONMENTAL MANAGEMENT COMPANY
PERTH AMBOY, NEW JERSEY

PROJECT #:	DATE:	DWN:	CHKD:	FIG NO.:
450915-02000	6/18/2018	ADW	CC	8

Path: \\NJSOM02FS01\Projects\Projects\Chevron\DMS\Projects\Sitewide MNA\Sitewide\Figures\Sitewide MNA - Groundwater Benzene - Figure 8 - 2008 Groundwater Benzene Results.mxd





Legend

- Shallow Monitoring Well - Benzene < 1 ug/L
- Shallow Monitoring Well - Benzene >= 1 ug/L
- Shallow Monitoring Well - Benzene > 10 ug/L
- Shallow Monitoring Well - Benzene > 100 ug/L
- Shallow Monitoring Well - Benzene > 1000 ug/L
- Groundwater Benzene > 1 ug/L
- Groundwater Benzene > 10 ug/L
- Groundwater Benzene > 100 ug/L
- Groundwater Benzene > 1000 ug/L
- Property Line
- Railroad
- Buildings

GENERAL NOTE:
Benzene groundwater plumes were created using the Inverse Distance Weighting interpolation method.

SITEWIDE 2017Q2-2018Q1
SHALLOW MONITORING WELL
BENZENE RESULTS
MONITORED ATTENUATION IMPLEMENTATION WORK PLAN

CHEVRON
ENVIRONMENTAL MANAGEMENT COMPANY
PERTH AMBOY, NEW JERSEY

PROJECT #:	DATE:	DWN:	CHKD:	FIG NO.:
450915-02000	8/23/2018	ADW	CC	9

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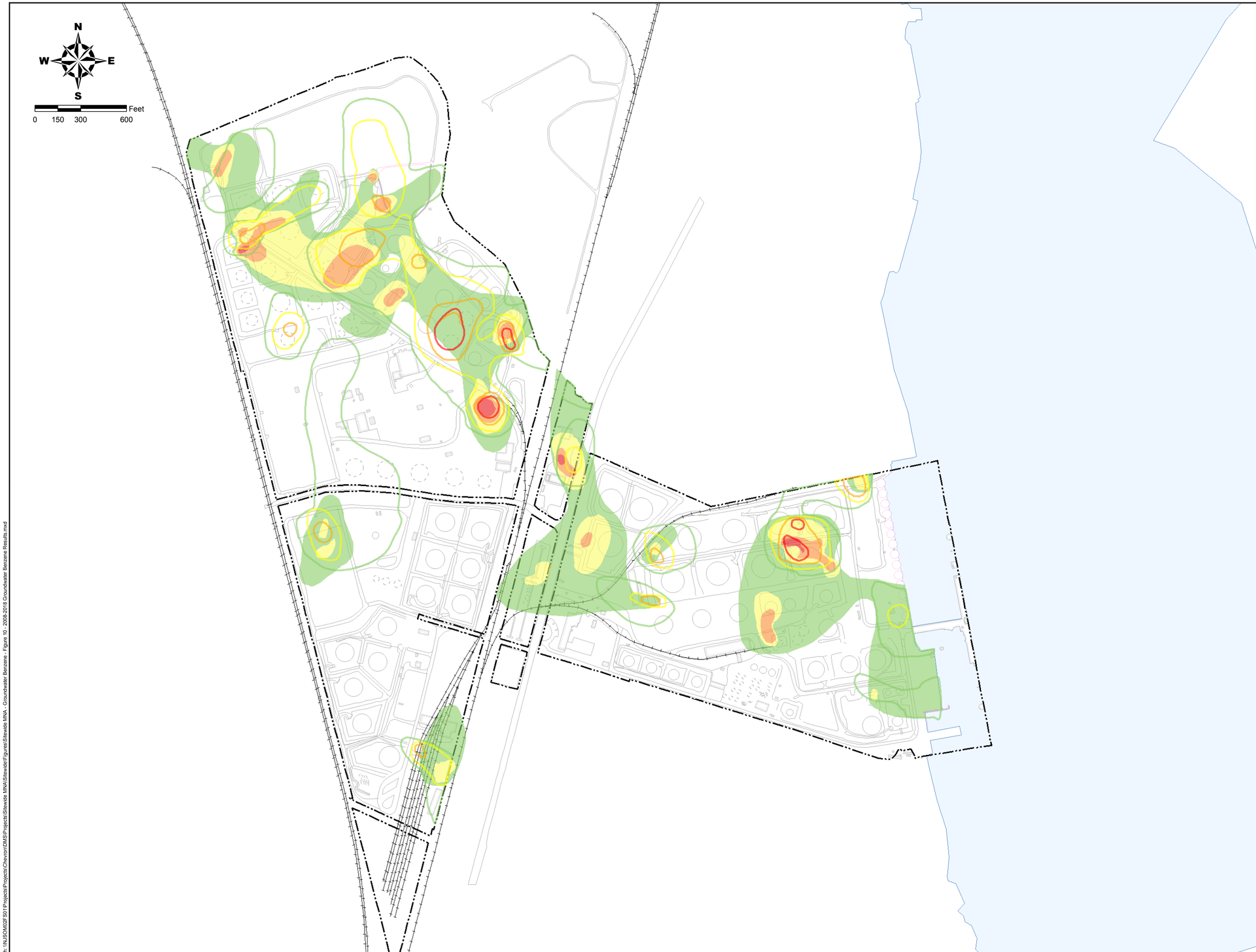

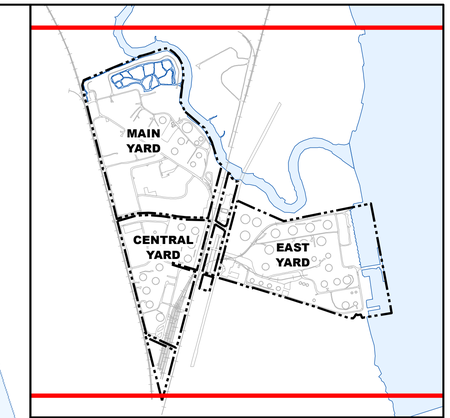

Legend

Sitewide 2008 Benzene Contours

- Groundwater Benzene > 1 ug/L
- Groundwater Benzene > 10 ug/L
- Groundwater Benzene > 100 ug/L
- Groundwater Benzene > 1000 ug/L

Sitewide 2017Q2-2018Q1 Benzene Results

- Groundwater Benzene > 1 ug/L
- Groundwater Benzene > 10 ug/L
- Groundwater Benzene > 100 ug/L
- Groundwater Benzene > 1000 ug/L
- Property Line
- Railroad
- Buildings

GENERAL NOTE:
Benzene groundwater plumes were created using the Inverse Distance Weighting interpolation method.

SITEWIDE 2008 AND 2017Q2-2018Q1 SHALLOW MONITORING WELL BENZENE RESULTS

MONITORED ATTENUATION IMPLEMENTATION WORK PLAN

CHEVRON
ENVIRONMENTAL MANAGEMENT COMPANY
PERTH AMBOY, NEW JERSEY

PROJECT #:	DATE:	DWN:	CHKD:	FIG NO.:
450915-02000	8/23/2018	ADW	CC	10

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APPENDIX A

Groundwater VOCs

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0037R	MW-0037R	MW-0037RR	MW-0037RR	MW-0037RR	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044
			Sample Date	08/20/2013	08/20/2014	11/14/2017	02/08/2018	02/08/2018	10/22/2002	03/06/2003	02/19/2004	07/07/2004	10/19/2004	01/05/2005	05/19/2005	07/26/2005	11/29/2005	02/09/2006	04/28/2006	07/07/2006	09/27/2007	06/05/2008	07/28/2009	07/29/2010	08/23/2011	04/03/2012	04/03/2012
			Field Sample ID	M037RA1	M037RA2X	M037RRA8X	D0208188	M037RRA9X	M044A1Y	M044A2Y	M044A3	M044A4	M044A5X	M044A6X	M044A7X	M044A8X	M044A9X	M044B1X	M044B2X	M044B3X	M044B4X	M044B5X	M044B6X	M044B7X	M044B8X	M044B9X	M044B9X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.5U	0.5U	0.5U	0.5U	220	160	520	220	450	310	120	90	45	97	120	60	62	30	18	25	17	-	25
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.5U	0.5U	0.5U	0.5U	2100	1000	4500	1600	3500	2600	530	390	250	480	350	260	280	130	58	88	40	-	59
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	4U	0.8U	4U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	10U	2U	10U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U
1,1-Dichloroethane	ug/L	N	50	1U	0.7J	0.5U	0.5U	0.5U	26	10	22J	17	38	41	11	11	5	9	11	9	11	6	4J	7	5J	-	8
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	10U	2U	10U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U
1,2-Dibromoethane	ug/L	N	0	1U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,2-Dichloroethane	ug/L	N	2	1U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,2-Dichloropropane	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	15U	3U	15U	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	15U	3U	15U	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	15U	3U	15U	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	30U	6U	30U	30U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	6U
Benzene	ug/L	N	1	0.6J	1	2	3	3	0.5U	0.5U	3U	0.5U	3U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U
Bromodichloromethane	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Bromoform	ug/L	N	4	1U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	41000	32000	23000	29000	44000	57000	33000	33000	40000	23000	-	23000
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Carbon Tetrachloride	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Chlorobenzene	ug/L	N	50	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	4U	0.8U	4U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U
Chloroethane	ug/L	N	5	1U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Chloroform	ug/L	N	70	0.8U	0.5U	0.5U	0.5U	0.5U	3J	0.8U	4U	0.8U	4U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	4U	1J	4U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	10U	2U	10U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U
Dibromochloromethane	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	0.5U	0.5U	0.5U	0.5U	2U	2U	10U	2U	10U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	0.043	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	18	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	0.061	-
Ethylbenzene	ug/L	N	700	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	4U	0.8U	4U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	2J	2J	2J	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Methane	ug/L	N	NS	3500	-	-	-	-	-	-	-	18	69	30	7.1	3.4J	2.6J	3.8J	6.4	3.7J	9.1	2.8J	7.2J	6.7J	5.0U	9.5	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2J	3U	0.5U	3U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	2J	1U	1U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	0.5U	0.5U	0.5U	2U	2U	10U	2U	10U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.5U	0.5U	0.5U	0.5U	37	14	11J	10	10J	8J	9	9	3J	7	9	9	6	4J	3J	3J	4J	-	3J
Toluene	ug/L	N	600	0.7U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	4U	0.7U	5J	4U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	-	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	4U	0.8U	4U	4U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	34	13	31	16	30	18J	9	7	3J	7	8	5	5J	3J	2J	3J	2J	-	2J
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	0.5U	0.5U	0.5U	0.5U	2U	2U	10U	2U	10U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	1U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Xylene (total)	ug/L	N	1000	0.8U	0.5U	0.5U	0.5U	0.5U	1J	0.8U	4U	0.8U	23J	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0044	MW-0044	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0054	MW-0054	MW-0054	MW-0054
			Sample Date	06/13/2012	08/06/2013	10/14/2002	03/27/2003	02/17/2004	09/08/2004	10/12/2004	01/06/2005	05/19/2005	07/28/2005	12/14/2005	02/24/2006	05/10/2006	07/21/2006	06/12/2008	08/20/2009	06/22/2010	09/02/2011	06/28/2012	08/08/2013	05/10/2004	11/04/2004	09/22/2005	06/27/2006
			Field Sample ID	M044C1X	M044C2X	M045A1Y	M045A2Y	M045A3	M045A4	M045A5X	M045A6X	M045A7X	M045A8X	M045A9X	M045B1X	M045B2X	M045B3X	M045B5X	M045B6X	M045B7X-100622	M045B8X	M045B9X	M045C1X	M054A2	M054A1	M054A3	M054A4
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	1J	15	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	4J	38	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	6	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	9J	3U	30	8J
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	9J	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3J	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	21	6U	70	21
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	230	35	320	270
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	12000J	45000	-	-	-	-	-	-	-	51000	58000	73000	87000	85000	63000	54000	38000	51000	55000	86000	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10	2U	4J	18
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	1.0U	1.0U	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-
Ethene	ug/L	N	NS	1.0U	1.0U	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	110	20	210	220
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	4J	1U	7	6
Methane	ug/L	N	NS	5.0U	3.0U	-	-	-	2.4J	3.3J	2.0U	2.0U	2.0U	2.0U	3.1J	2.0U	2.0U	2.0U	5.0U	5.0U	5.0U	5.0U	3.0U	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2J	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	41	6	11	42
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	3J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	20	3J	46	40
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	160	24	470	170
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054R	MW-0054R	MW-0055	MW-0055	MW-0055	MW-0055R	MW-0055R	MW-0056
			Sample Date	11/16/2006	06/21/2007	06/12/2008	09/17/2009	02/19/2010	09/02/2011	06/26/2012	08/15/2013	08/15/2013	08/28/2013	08/20/2014	12/03/2014	12/03/2014	04/07/2015	05/07/2015	06/04/2015	11/10/2017	02/08/2018	08/14/2013	11/13/2014	12/03/2014	11/10/2017	02/02/2018	11/04/2004
			Field Sample ID	M054A5X	M054A6X	M054A7X	M054A8X	M054A9X	M054B1X	M054B2X	D08151312	M054B3	M054B3X	M054B4X	D1203148	M054B5X	M054B6X	M054B7X	M054B8X	M054RC6	M054RC7X	M055A1	M055A3X	M055A2X	M055RB1	M055RB2	M056A1
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	-	-	-	-	-	-	0.8U	0.8U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	-	-	-	-	-	-	0.8U	0.8U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5UJ	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	-	-	-	-	-	-	0.8U	0.8U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	-	-	-	-	-	2U	2U	-	-	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.7J	0.5U	1U	10	8	0.9J	0.8J	18
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	-	-	-	-	-	1U	1U	-	-	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	-	-	-	-	-	2U	2U	-	-	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	-	-	-	-	-	1U	1U	-	-	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	1U
1,2-Dichloropropane	ug/L	N	1	1U	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	-	-	-	-	-	-	1U	1U	-	-	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	-	-	-	-	-	-	1U	1U	-	-	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	7J	-	-	-	-	-	-	3U	3U	-	-	3U	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	-	-	-	-	-	-	3U	3U	-	-	3U	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	-	-	-	-	-	-	3U	3U	-	-	3U	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U
Acetone	ug/L	N	6000	11J	-	-	-	-	-	-	6U	6U	-	-	6U	6U	60U	6U	6U	6U	6U	6U	6J	6U	6U	6U	6U
Benzene	ug/L	N	1	220	360	270	280	220	190	9	64	81	120	110	48	47	110	130	84	6	0.5U	28	1	5	4	5	2J
Bromodichloromethane	ug/L	N	1	1U	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	1U
Bromoform	ug/L	N	4	1U	-	-	-	-	-	-	1U	1U	-	-	0.5UJ	0.5UJ	5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	-	-	-	-	-	-	1U	1U	-	-	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	-	-	-	-	-	-	1U	1U	-	-	0.5UJ	0.5UJ	5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U
Chlorobenzene	ug/L	N	50	0.8U	-	-	-	-	-	-	0.8U	0.8U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U
Chloroethane	ug/L	N	5	1U	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	1U
Chloroform	ug/L	N	70	0.8U	-	-	-	-	-	-	0.8U	0.8U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	-	-	-	-	-	-	0.8U	0.8U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	1U
Cyclohexane	ug/L	N	100	15	-	-	-	-	-	-	2U	3J	-	-	2U	2U	20U	3J	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	-	-	-	-	-	-	2U	2U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	130	220	170	260	86	100	0.8U	5	6	3J	4	2	2	7J	9	10	0.5U	0.5U	0.8U	0.5U	0.5U	1	1	0.9J
Isopropylbenzene	ug/L	N	700	5J	-	-	-	-	-	-	1J	2J	-	-	1U	1U	10U	2J	1J	1U	1U	2J	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	10000	12000	-	-	-	-	-	-	-	-	-	9200	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	-	-	-	-	-	1U	1U	-	-	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	-	-	-	-	-	0.5U	0.5U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	35	-	-	-	-	-	-	11	11	-	-	4J	3J	10U	12	5J	1U	1U	3J	1U	1U	1U	1U	2J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	-	-	-	-	-	2U	2U	-	-	2U	2U	20U	2U	2U	0.5U	0.5U	2U	2U	2U	0.5U	0.5U	2U
Styrene	ug/L	N	100	1U	-	-	-	-	-	-	1U	1U	-	-	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	-	-	-	-	-	-	0.8U	0.8U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U
Toluene	ug/L	N	600	29	31	22	19	14	16	0.7U	2J	2J	2J	1	0.8J	0.7J	5U	3	2	0.5U	0.5U	2J	0.5U	0.5U	0.5U	0.5U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	-	-	-	-	-	-	0.8U	0.8U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	-	-	-	-	-	-	2U	2U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	1U
Xylene (total)	ug/L	N	1000	340	250	140	210	100	130	0.8U	10	10	6	4	1	1	5U	3	5	0.5U	0.5U	4J	0.8J	1	1J	1J	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	1200	1300	-	-	300	320	-	-	-	-	-	340J+	-	92	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056R	MW-0056R	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101
			Sample Date	05/10/2005	09/22/2005	06/27/2006	11/02/2006	06/21/2007	06/12/2008	09/11/2009	02/19/2010	09/02/2011	06/26/2012	06/26/2012	08/14/2013	08/28/2013	08/20/2014	11/10/2017	02/02/2018	10/10/2002	03/26/2003	07/12/2004	10/12/2004	01/13/2005	05/12/2005	07/21/2005	12/14/2005
			Field Sample ID	M056A2	M056A3	M056A4	M056A5X	M056A6X	M056A7X	M056A8X	M056A9X	M056B1X	D0626121	M056B2X	M056B2	M056B3X	M056B4X	M056RC3	M056RC4	M101A1X	M101A2X	M101A3	M101A4X	M101A5X	M101A6X	M101A7X	M101A8X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	2U	0.8U	16U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	2U	0.8U	16U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	0.5UJ	1U	1U	2U	1U	20U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	2U	0.8U	16U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	2U	2U	2U	2U	4U	2U	40U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	15	20	1U	5J	-	-	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	2U	1U	20U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	1U	1U	1U	2U	1U	20U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	2U	2U	2U	2U	4U	2U	40U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	2U	1U	20U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	1U	1U	1U	2U	1U	20U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	2U	1U	20U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	2U	1U	20U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	1U	1U	1U	2U	1U	20U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	1U	1U	1U	2U	1U	20U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	-	-	3U	3U	3U	3U	6U	3U	60U	3U	3U	3J
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	-	-	3U	3UJ	3U	3U	6U	3U	60U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	-	-	3U	3UJ	3U	3U	6U	3U	60U	3U	3U	3U
Acetone	ug/L	N	6000	6U	7J	8J	8J	-	-	-	-	-	-	-	6U	-	-	6U	6U	6U	12J	22J	39	120U	17J	19J	32
Benzene	ug/L	N	1	2J	1J	38	10	36	12	10	17	6	5J	140J	4J	11	4	40	32	110	100	45	70	51J	49	36	73
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	2U	1U	20U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	2U	1U	20U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	2U	1U	20U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	290000	260000
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	1U	1U	2J	2U	1U	20U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	2U	1U	20U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	2U	0.8U	16U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	2U	1U	20U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	2U	0.8U	16U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	2U	1U	20U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	2U	0.8U	16U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	2U	1U	20U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	8	9	10	15	5J	8	40U	6	4J	9
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	2U	1U	20U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	0.5U	0.5U	2U	2U	4U	2U	40U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4J	1.1J
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U
Ethylbenzene	ug/L	N	700	0.8U	0.8U	4J	3J	6	3	7	3J	1J	0.8UJ	30J	0.8U	1J	0.5U	18	29	4J	5	2J	2J	16U	2J	2J	3J
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	11	11	3J	4J	2U	2J	20U	2J	1J	2J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	440	-	-	-	-	-	-	13000	9900	13000	7200	6200	6300
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	1U	1U	1U	2U	1U	20U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	0.5U	-	-	0.5U	0.5U	0.8J	0.5U	1U	0.5U	10U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	2J	1J	1J	2J	-	-	-	-	-	-	-	1U	-	-	24	25	9	14	5J	3J	20U	5	3J	4J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	0.5U	0.5U	2U	2U	4U	2U	40U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	1U	1U	1U	2U	1U	20U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	2U	0.8U	16U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	2J	0.7U	2J	0.5U	0.7U	1J	0.7U	0.7UJ	7J	0.7U	0.7U	0.5U	3	4	2J	2J	1U	0.9J	14U	0.8J	0.7U	1J
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	2U	0.8U	16U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	2U	1U	20U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	2U	1U	20U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	0.5U	0.5U	2U	2U	4U	2U	40U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	0.5U	4J	3J	2U	3J	20U	2J	1U	3J
Xylene (total)	ug/L	N	1000	0.8U	0.8U	4J	3J	4J	2	1J	4J	0.8U	0.8UJ	42J	0.8U	0.8U	0.5U	10	24	12	6	2U	1J	16U	1J	0.8U	1J
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	40J	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-101	MW-101	MW-101	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102
			Sample Date	02/22/2006	05/09/2006	07/21/2006	10/14/2002	01/30/2003	02/23/2004	07/08/2004	10/19/2004	01/05/2005	05/19/2005	07/26/2005	11/29/2005	02/09/2006	04/28/2006	07/07/2006	09/25/2007	05/30/2008	09/02/2009	07/29/2010	08/23/2011	04/03/2012	04/03/2012	04/03/2012	06/13/2012
			Field Sample ID	M101A9X	M101B1X	M101B2X	M102A1Y	M102A2Y	M102A3	M102A4	M102A5X	M102A6X	M102A7X	M102A8X	M102A9X	M102B1X	M102B2X	M102B3X	M102B4X	M102B5X	M102B6X	M102B7X	M102B8X	D0403123	M102B9X	M102B9X	M102C1X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	9J	5J	9	9J	13J	14J	9J	11J	21	20J	18	24J	15J	64	64	22J	6J	4U	-	4U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	8U	4U	10	8U	10J	42J	22J	22J	100	130	99	90	21J	330	150	18J	13J	5J	-	5J	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	8U	4U	0.8U	8U	8U	8U	8U	4U	2U	4U	2U	8U	8U	8U	4U	4U	4U	4U	-	4U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	20U	10U	2U	20U	20U	20U	20U	10U	4U	10U	4U	20U	20U	20U	10U	10U	10U	10U	-	10U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	10U	11J	79	82	180	170	150	190	530	530	600	760	380	1000	1200	400	210	56	-	58	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	20U	10U	2U	20U	20U	20U	20U	10U	4U	10U	4U	20U	20U	20U	10U	10U	10U	10U	-	10U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	28	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	30U	15U	3U	30U	30U	30U	30U	22J	6U	15U	6J	30U	30U	30U	15U	15U	22J	24J	-	23J	3U
2-Hexanone	ug/L	N	300	3U	3U	3U	30U	15U	3U	30U	30U	30U	30U	15U	6U	15U	6U	30U	30U	30U	15U	15U	15U	15U	-	15U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	30U	15U	3U	30U	30U	30U	30U	15U	6U	15U	6U	30U	30U	30U	15U	15U	15U	15U	-	15U	3U
Acetone	ug/L	N	6000	44	36	66	60U	30U	7J	60U	60U	60U	60U	33J	12U	30U	12U	60U	60U	60U	30U	30U	35J	43J	-	50J	6U
Benzene	ug/L	N	1	78	58	43	1700	1600	1100	1400	1300	910	1100	1200	390	1000	1100	1100	1200	720	570	680	450	360	-	370	0.5U
Bromodichloromethane	ug/L	N	1	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
Bromoform	ug/L	N	4	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
Carbon Dioxide	ug/L	N	NS	280000	310000	320000	-	-	-	-	-	-	-	160000	140000	140000	140000	160000	150000	130000	94000	140000	57000	-	-	40000	4000U
Carbon disulfide	ug/L	N	700	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	8U	4U	0.8U	8U	8U	8U	8U	4U	2U	4U	2U	8U	8U	8U	4U	4U	4U	4U	-	4U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	10U	12J	79	41J	73	120	77	70	260	200	220	180	590	360	760	540	190	90	-	91	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	8U	4U	0.8U	8U	8U	8U	8U	8J	2U	4U	2U	8U	8U	8U	4U	4J	4U	4U	-	4U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	8U	4U	0.8U	8U	8U	8U	8U	4U	2J	4U	2U	8U	8U	8U	4U	4U	4U	4U	-	4U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
Cyclohexane	ug/L	N	100	4J	4J	4J	170	170	160	160	140	94	82	87	120	170	150	150	150	77	110	120	63	68	-	71	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	20U	10U	2U	20U	20U	20U	20U	10U	4U	10U	4U	20U	20U	20U	10U	10U	10U	10U	-	10U	2U
Ethane	ug/L	N	NS	1.0J	1.7J	200U	-	-	-	-	-	-	-	1.6J	2.3J	3.0J	2.9J	1.0U	4.7J	4.0J	1.0U	8.6	1.8J	-	3.4	-	1.0U
Ethene	ug/L	N	NS	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	1.0U	1.3J	1.8J	1.4J	1.4J	1.0U	1.3J	3.8J	1.7J	1.0U	-	0.34	-	1.0U
Ethylbenzene	ug/L	N	700	2J	2J	1J	3600	3000	2600	3200	2400	1800	2400	1900	920	2600	2300	2500	2400	2100	1700	1900	1200	1000	-	1100	0.8U
Isopropylbenzene	ug/L	N	700	1J	1J	1J	150	130	150	150	100	100	120	93	130	160	150	130	140	120	110	110	83	65	-	68	1U
Methane	ug/L	N	NS	6600	6400	6900	-	-	-	11000	8200	7000	4300	4900	3800	4100	3700	6500	5600	4000	3800	5800	1100	-	2500	-	5.2J
Methyl acetate	ug/L	N	7000	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	5U	3U	2J	5U	5U	5U	5U	3U	3J	3J	2J	5U	5U	5U	3U	3U	3U	3U	-	3U	0.5U
Methylcyclohexane	ug/L	N	100	3J	2J	3J	85	77	110	100	41J	57	58	54	98	110	110	99	93	80	68	95	41	42	-	43	2J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	20U	10U	2U	20U	20U	20U	20U	10U	4U	10U	4U	20U	20U	20U	10U	10U	10U	10U	-	10U	2U
Styrene	ug/L	N	100	1U	1U	1U	10U	5U	1U	10U	140	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	8U	4U	0.8U	8U	8U	8U	8U	4U	2U	4U	2U	8U	8U	8U	4U	4U	4U	4U	-	4U	0.8U
Toluene	ug/L	N	600	0.8J	0.7J	0.7J	6500	5300	2300	3800	3000	2000	2300	3000	1100	2800	2600	2200	2200	1300	600	810	500	560	-	590	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	8U	4U	0.8U	8U	8U	8U	8U	4U	2U	4U	2U	8U	8U	8U	4U	4U	4U	4U	-	4U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	10U	5U	1U	10U	10U	10U	10U	5U	2U	5U	2U	10U	10U	10U	5U	5U	5U	5U	-	5U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	20U	10U	2U	20U	20U	20U	20U	10U	4U	10U	4U	20U	20U	20U	10U	10U	10U	10U	-	10U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	2J	1J	1J	10U	5U	5J	10U	10U	10U	10U	6J	25	18J	19	16J	20J	23J	42	30	11J	5U	-	5U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	25000	20000	18000	22000	16000	16000	17000	16000	13000	16000	15000	15000	15000	16000	8400	12000	6500	7000	-	7600	6
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-102	MW-102	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104
			Sample Date	04/29/2013	08/13/2013	11/20/2002	03/11/2003	02/11/2004	06/28/2005	06/21/2006	06/20/2007	05/30/2008	09/09/2009	08/10/2010	09/16/2011	06/22/2012	08/27/2013	08/21/2014	07/16/2015	09/12/2017	02/28/2018	12/11/2002	01/29/2003	02/11/2004	06/28/2005	06/21/2006	06/20/2007
			Field Sample ID	M102C2X	M102C4X	M103A1Y	M103A2Y	M103A3	M103A4X	M103A5X	M103A6X	M103A7X	M103A8X	M103A9X	M103B1X	M103B2X	M103B3X	M103B4X	M103B5X	M103B9X	M103C1X	M104A1Y	M104A2Y	M104A3	M104A4X	M104A5X	M104A6X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	5	22	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	-
1,1,1-Trichloroethane	ug/L	N	30	4J	7	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-	-	2U	2U	2U	2U	2U	-
1,1-Dichloroethane	ug/L	N	50	66	31	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-	-	2U	2U	2U	2U	2U	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
1,2-Dichloroethane	ug/L	N	2	2J	5J	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	-	-	-	-	-	5J	4J	3U	3U	3U	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	-	-	-	-	-	3U	3U	3U	3U	3U	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	-	-	-	-	-	3U	3U	3U	3U	3U	-
Acetone	ug/L	N	6000	6U	6U	14J	14J	6U	7J	10J	-	-	-	-	-	71	-	-	-	-	-	12J	12J	6U	6U	11J	-
Benzene	ug/L	N	1	150	110	0.7J	0.5U	0.5U	1J	0.5J	0.5U	0.5U	0.5U	0.7J	0.5J	0.5U	0.5U	0.5J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
Carbon Dioxide	ug/L	N	NS	-	39000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	-
Chloroethane	ug/L	N	5	50	54	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
Cyclohexane	ug/L	N	100	24	23	4J	2U	2U	8	5J	-	-	-	-	-	5J	-	-	-	-	-	2U	2U	2U	2U	2U	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-	-	2U	2U	2U	2U	2U	-
Ethane	ug/L	N	NS	-	3.8J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	1.0U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	310	120	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Isopropylbenzene	ug/L	N	700	23	21	1J	1J	1J	1J	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
Methane	ug/L	N	NS	-	1600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	-
Methylcyclohexane	ug/L	N	100	10	16	3J	1U	3J	3J	2J	-	-	-	-	-	2J	-	-	-	-	-	1U	1U	1U	1U	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-	-	2U	2U	2U	2U	2U	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	-
Toluene	ug/L	N	600	100	19	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	3J	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-	-	2U	2U	2U	2U	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	3J	7	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	-
Xylene (total)	ug/L	N	1000	1200	250	0.9J	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.9J	1J	0.8U	0.9J	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105
			Sample Date	05/30/2008	09/09/2009	08/10/2010	09/16/2011	06/22/2012	08/27/2013	08/21/2014	02/28/2018	11/20/2002	03/12/2003	11/20/2003	02/24/2004	05/26/2004	06/28/2005	06/21/2006	06/21/2007	05/20/2008	09/11/2009	08/12/2010	08/12/2010	09/16/2011	06/29/2012	08/27/2013	08/22/2014
			Field Sample ID	M104A7X	M104A8X	M104A9X	M104B1X	M104B2X	M104B3X	M104B4X	M104B7X	M105A1Y	M105A2Y	M105A3A	M105A4	040526MW-105	M105A5X	M105A6X	M105A7X	M105A8X	M105A9X	D0812101	M105B1X	M105B2X	M105B3X	M105B4X	M105B5X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	0.8U	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	0.8U	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	0.8U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	2U	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	2U	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	3U	-	-	-	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	3U	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	3U	-	-	-	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	3U	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	3U	-	-	-	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	3U	-	-
Acetone	ug/L	N	6000	-	-	-	-	8J	-	-	-	7J	7J	12J	6U	6U	6U	6U	-	-	-	-	-	-	6U	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Bromoform	ug/L	N	4	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	1U	-	-	-	3J	1U	1J	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Chlorobenzene	ug/L	N	50	-	-	-	-	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	0.8U	-	-
Chloroethane	ug/L	N	5	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Chloroform	ug/L	N	70	-	-	-	-	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	0.8U	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	0.8U	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Cyclohexane	ug/L	N	100	-	-	-	-	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	2U	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	2U	-	-	-	2U	2U	2U	2U	2UJ	2U	2U	-	-	-	-	-	-	2U	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Isopropylbenzene	ug/L	N	700	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	0.5U	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	0.5U	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	2U	-	-
Styrene	ug/L	N	100	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	0.8U	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	0.8U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	2U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-106	MW-106	MW-106	MW-106	MW-106	MW-106R	MW-106R	MW-106R	MW-106R	MW-106R	MW-106R	MW-106R	MW-106R	MW-106R	MW-106R	MW-106R	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108
			Sample Date	10/15/2002	02/03/2003	02/03/2003	04/11/2003	09/14/2004	02/12/2004	05/12/2005	09/29/2005	06/23/2006	10/18/2006	06/19/2007	05/22/2008	09/09/2009	08/10/2010	08/31/2011	06/15/2012	12/02/2002	03/05/2003	02/10/2004	09/14/2004	05/10/2005	09/26/2005	06/21/2006	10/18/2006
			Field Sample ID	M106A1X	M106A2	M106A2	M106A24	M106A3	M106RA1	M106RA4X	M106RA5	M106RA6	M106RA7	M106RA8	M106RA9X	M106RB1X	M106RB2X	M106RB3X	M106RB4X	M108A1Y	M108A2Y	M108A3	M108A4	M108A5	M108A6	M108A7	M108A8
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2	2	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2	2	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3	3	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	3U	3	3	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3	3	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	7J	6U	32	32	6U	6U	7J	6U	6U	7J	-	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	7J
Benzene	ug/L	N	1	0.5U	0.5U	0.5	0.5	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	7	4J	8	4J	4J	4J	5	4J
Bromodichloromethane	ug/L	N	1	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	2	2	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2	2	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	2J	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2	2	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	3J	1J	1J	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	2	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	3J	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2	2	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7	0.7	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2	2	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	34	5J	1J	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-110	MW-110	MW-110	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111
			Sample Date	06/19/2007	05/22/2008	09/09/2009	08/10/2010	08/31/2011	06/15/2012	08/15/2013	08/21/2014	10/25/2002	01/30/2003	02/23/2004	10/29/2002	03/06/2003	02/12/2004	09/16/2004	05/12/2005	09/29/2005	06/23/2006	10/18/2006	06/19/2007	05/22/2008	09/09/2009	08/10/2010	08/10/2010
			Field Sample ID	M108A9	M108B1X	M108B2X	M108B3X	M108B4X	M108B5X	M108B6X	M108B7X	M110A1X	M110A2Y	M110A3	M111A1Y	M111A2X	M111A3	M111A4	M111A5X	M111A6	M111A7	M111A8	M111A9	M111B1X	M111B2X	D0810101	M111B3X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	3J	1U	3J	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6J	-	-	-	-	-
Benzene	ug/L	N	1	1J	0.9J	3J	3J	3J	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-111	MW-111	MW-111	MW-111	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129
			Sample Date	08/31/2011	06/19/2012	08/15/2013	08/21/2014	10/14/2002	01/29/2003	11/19/2003	02/25/2004	07/20/2004	10/14/2004	01/11/2005	05/17/2005	07/28/2005	12/14/2005	02/24/2006	08/17/2006	09/27/2007	06/17/2008	09/15/2009	08/12/2010	09/15/2011	09/15/2011	06/29/2012	08/22/2014
			Field Sample ID	M111B4X	M111B5X	M111B6X	M111B7X	M129A1Y	M129A2Y	M129A3	M129A4	M129A5	M129A6X	M129A7X	M129A8X	M129A9X	M129B1X	M129B2X	M129B4X	M129B5X	M129B6X	M129B7X	M129B8X	D0915111	M129B9X	M129C1X	M129C3X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	7J	6U	6U	6U	6U	6U	6U	6U	6U	6U
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Bromoform	ug/L	N	4	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	10000	8000	8900	11000	13000	6200J	9200J	12000J	14000	14000	11000J	25000
Carbon disulfide	ug/L	N	700	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Chlorobenzene	ug/L	N	50	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Chloroethane	ug/L	N	5	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Chloroform	ug/L	N	70	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Cyclohexane	ug/L	N	100	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	100U	1.8J	2.0J	2.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Isopropylbenzene	ug/L	N	700	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	1600	2500	7700	2000	2600	3100	3700	2500	5900	7000	1400	160	2800	2700	2700	1500
Methyl acetate	ug/L	N	7000	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	0.6J	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-129	MW-129	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-133	MW-133	MW-133	MW-133	MW-133
			Sample Date	07/16/2015	12/19/2017	12/02/2002	04/09/2003	02/24/2004	06/04/2004	09/22/2005	06/15/2006	06/20/2007	05/16/2008	09/11/2009	09/11/2009	08/03/2010	08/18/2011	06/26/2012	08/27/2013	08/22/2014	06/15/2016	05/03/2017	10/17/2002	10/07/2004	06/01/2005	11/15/2005	06/15/2006
			Field Sample ID	M129C4X	M129D2X	M130A1X	M130A2Y	M130A3	040604MW-130	M130A4X	M130A5X	M130A6X	M130A7X	D0911091	M130A8X	M130A9X	M130B1X	M130B2X	M130B3X	M130B4X	M130B5X	M130B6X	M133A1X	M133A2X	M133A3	M133A4X	M133A5X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	7J	6U	6U	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-	-	-	6U	20	8J	6U	8J
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2J	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	16000	26000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1J	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	12	7	8	3J	7
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	3J	1J	1U	1U	2J
Methane	ug/L	N	NS	980	760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	5	4J	5J	2J	4J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	0.5U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8J	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.9J	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14
			Sample Date	11/21/2006	06/12/2007	12/12/2007	08/15/2008	07/08/2009	07/09/2010	08/04/2011	04/24/2012	04/04/2013	09/10/2014	04/17/2015	06/09/2016	05/10/2017	10/18/1995	12/18/1995	02/22/1996	04/17/1996	10/10/2002	01/29/2003	11/12/2003	08/16/2004	03/23/2005	08/16/2005	03/23/2006
			Field Sample ID	M133A6X	M133A7X	M133A8X	M133A9X	M133B1X	M133B2X	M133B3X	M133B4X	M133B5X	M133B6X	M133B7X	M133B8X	M133B9X	MW-0014A-1	MW-0014-A2	MW-0014-AY	MW-0014-AX	M014A1Y	M014A2Y	M014A3	M014A4	M014A5	M014A6	M014A7
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	4U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	4U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	4U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	10U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	10U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	5.00U	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	10.00U	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	2.00U	5U	2U	2U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	10.00U	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	10.00U	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	15U	3U	3U	-	-	-	-	-	-	-	-	-	-	10.00U	10U	10U	10U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	15U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	15U	3U	3U	-	-	-	-	-	-	-	-	-	-	10.00U	-	-	-	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	30U	13J	6U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U
Benzene	ug/L	N	1	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1.00U	5U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	5.00U	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	4U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	4.00U	5U	4U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	4U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	5.00U	5U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	4U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	10U	5	4J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	10U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	5.00U	5U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	5U	3J	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	3U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	5U	4J	4J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	10U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	5.00U	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	4U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	4U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	5.00U	5U	5U	5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	4U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	10U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	4U	1J	0.8U	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	5.00U	5U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144
			Sample Date	09/08/2006	03/21/2007	03/11/2008	02/27/2009	03/11/2010	03/29/2011	05/02/2012	06/25/2013	09/23/2014	07/08/2015	01/07/2016	02/17/2017	08/25/2017	12/02/2002	02/14/2003	07/10/2003	10/29/2003	08/30/2004	04/05/2005	09/07/2005	04/04/2006	09/13/2006	04/20/2007	09/13/2007
			Field Sample ID	M014A8	M014A9	M014B1X	M014B2X	M014B3X	M014B4X	M014B5X	M014B6X	M014B7X	M014B8X	M014B9X	M014C4X	M014C6X	M144A1X	M144A2Y	M144A3	M144A4	M144A5	M144A6X	M144A7X	M144A8X	M144A9	M144B1X	M144B2X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	-	-	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	6U	60U	100	6U	6U	17J	6U	29
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5J	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	3J	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	4J	0.7J	3J	0.5U
Methylcyclohexane	ug/L	N	100	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147
			Sample Date	03/27/2008	09/11/2008	03/18/2009	10/08/2009	03/18/2010	08/19/2010	04/07/2011	06/08/2012	05/31/2013	09/24/2014	09/24/2014	05/27/2016	09/14/2016	12/27/2016	05/31/2017	10/21/2002	03/11/2003	02/19/2004	09/14/2004	05/10/2005	09/29/2005	06/30/2006	11/02/2006	06/20/2007
			Field Sample ID	M144B3X	M144B4X	M144B5X	M144B6X	M144B7X	M144B8X	M144B9X	M144C1X	M144C2X	D0924141	M144C3X	M144C4X	M144C5X	M144C6X	M144C7X	M147A1Y	M147A2X	M147A3A	M147A4	M147A5	M147A6	M147A7	M147A8	M147A9
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
1,1,1-Trichloroethane	ug/L	N	30	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
1,1,2-Trichloroethane	ug/L	N	3	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	10U	10U	2U	2U	2U	20U	2U	-	-	-	-	-	20UJ	40U	-	2U	2U	2U	2U	2U	2U	2U	2U	-
1,1-Dichloroethane	ug/L	N	50	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	3J	1U	2J	2J	1U	2J	1J	1U	-
1,2,4-Trichlorobenzene	ug/L	N	9	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	10U	10U	2U	2U	2U	20U	2U	-	-	-	-	-	20UJ	40U	-	2U	2U	2U	2U	2U	2U	2U	2U	-
1,2-Dibromoethane	ug/L	N	0	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
1,2-Dichloroethane	ug/L	N	2	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
1,2-Dichloropropane	ug/L	N	1	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
1,3-Dichlorobenzene	ug/L	N	600	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
1,4-Dichlorobenzene	ug/L	N	75	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	15U	15U	3U	3J	4J	30U	3U	-	-	-	-	-	30UJ	60U	-	3U	3U	3U	3U	3U	3U	3U	3U	-
2-Hexanone	ug/L	N	300	15U	15U	3U	3U	3U	30U	3U	-	-	-	-	-	30UJ	60U	-	3U	3U	3U	3U	3U	3U	3U	3U	-
4-Methyl-2-pentanone	ug/L	N	100	15U	15U	3U	3U	3U	30U	3U	-	-	-	-	-	30UJ	60U	-	3U	3U	3U	3U	3U	3U	3U	3U	-
Acetone	ug/L	N	6000	30U	90J	13J	16J	19J	60U	14J	-	-	-	-	-	60UJ	120U	-	6U	6U	6U	6U	6U	6U	6U	6U	-
Benzene	ug/L	N	1	3U	3U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	25U	5UJ	10U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
Bromoform	ug/L	N	4	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
Carbon Dioxide	ug/L	N	NS	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-
Carbon Tetrachloride	ug/L	N	1	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
Chlorobenzene	ug/L	N	50	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
Chloroethane	ug/L	N	5	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
Chloroform	ug/L	N	70	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
cis-1,3-Dichloropropene	ug/L	N	1	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
Cyclohexane	ug/L	N	100	10U	10U	2U	2U	2U	20U	2U	-	-	-	-	-	20UJ	40U	-	2U	2U	2U	2U	2U	2U	2U	2U	-
Dibromochloromethane	ug/L	N	1	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	10U	10U	2U	2U	2U	20U	2U	-	-	-	-	-	5UJ	10U	-	2U	2U	2U	2U	2U	2U	2U	2U	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.5U	0.5U	25U	5UJ	10U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Isopropylbenzene	ug/L	N	700	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
Methyl-t-butyl ether	ug/L	N	70	3U	3U	0.5J	0.5U	0.5U	5U	0.5U	-	-	-	-	-	5UJ	10U	-	0.5U	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Methylcyclohexane	ug/L	N	100	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	10U	10U	2U	2U	2U	20U	2U	-	-	-	-	-	20UJ	40U	-	2U	2U	2U	2U	2U	2U	2U	2U	-
Styrene	ug/L	N	100	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
Tetrachloroethene	ug/L	N	1	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
Toluene	ug/L	N	600	4U	4U	0.7U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.5U	0.5U	25U	5UJ	10U	1U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
trans-1,3-Dichloropropene	ug/L	N	1	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	10U	10U	2U	2U	2U	20U	2U	-	-	-	-	-	5UJ	10U	-	2U	2U	2U	2U	2U	2U	2U	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	-
Xylene (total)	ug/L	N	1000	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.5U	0.5U	25U	5UJ	10U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	26J	200UJ	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153
			Sample Date	06/17/2008	10/10/2008	09/02/2011	06/22/2012	08/28/2013	08/26/2014	11/13/2017	11/13/2017	02/28/2018	10/07/2002	01/22/2003	07/23/2003	11/04/2003	08/19/2004	04/07/2005	08/25/2005	03/15/2006	09/19/2006	03/21/2007	09/11/2007	03/11/2008	09/03/2008	04/02/2009	09/23/2009
			Field Sample ID	M147B1X	M147B2X	M147B3X	M147B4X	M147B5X	M147B6X	D1113178	M147C3X	M147C4X	M153A1Y	M153A2Y	M153A3	M153A4A	M153A5	M153A6	M153A7	M153A8	M153A9	M153B1	M153B2X	M153B3X	M153B4X	M153B5X	M153B6X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	-	0.8U	-	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	-	0.8U	-	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	-	1U	-	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	-	0.8U	-	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	-	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	-	1U	-	-	0.5J	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	-	1U	-	-	1UJ	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	-	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	-	1U	-	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	-	1U	-	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	-	1U	-	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	-	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	-	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	-	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	-	-	-
Acetone	ug/L	N	6000	6U	6U	-	6U	-	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	6U	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	0.5U	0.5U	0.5U	0.8J	0.5U	0.5U	0.5U	1J	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	1U	1U	-	1U	-	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
Bromoform	ug/L	N	4	1U	1U	-	1U	-	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	-	1U	-	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	-	1U	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	-	1U	-	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	-	0.8U	-	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	-	1U	-	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	-	0.8U	-	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	-	1U	-	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	-	0.8U	-	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	1U	-	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
Cyclohexane	ug/L	N	100	2U	2U	-	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	-	1U	-	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	-	2U	-	-	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	-	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	-	2U	-	-	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	-	-
Styrene	ug/L	N	100	1U	1U	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	-	0.8U	-	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	-	0.8U	-	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	1U	-	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	-	1U	-	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	-	2U	-	-	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	-	1U	-	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154
			Sample Date	03/02/2010	09/02/2010	03/29/2011	10/25/2011	06/06/2012	09/05/2012	07/03/2013	10/04/2013	06/11/2014	01/14/2015	01/07/2016	08/05/2016	02/28/2017	08/29/2017	03/13/2018	10/17/2002	01/31/2003	09/11/2003	07/30/2008	11/11/2008	06/09/2009	11/19/2009	06/15/2010	09/29/2010
			Field Sample ID	M153B7X	M153B8X	M153B9X	M153C1X	M153C2X	M153C3X	M153C4X	M153C5X	M153C6X	M153C7X	M153C8X	M153C9X	M153D1X	M153D2X	M153D3X	M154A1Y	M154A2X	M154A3	M154A4X	M154A5X	M154A6X	M154A7X	M154A8X-100615	M154A9X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	6	1U	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	-	-	-	-	-	-
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10J	6U	6U	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	4U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
			Sample Date	08/04/2011	11/22/2011	03/27/2012	08/16/2012	04/04/2013	10/29/2013	03/28/2014	11/13/2014	04/16/2015	02/02/2016	02/09/2016	08/16/2016	02/15/2017	08/22/2017	12/05/2002	02/04/2003	09/29/2003	05/27/2004	08/09/2004	03/10/2005	08/11/2005	03/07/2006	09/01/2006	03/13/2007
			Field Sample ID	M154B1X	M154B2X	M154B3X	M154B4X	M154B5X	M154B7X	M154B8X	M154B9X	M154C1X	M154HS	M154C2X	M154C3X	M154C4X	M154C5X	M158A1X	M158A2X	M158A3	040527MW-158	MW158A4	M158A5	M158A6	M158A7	M158A8	M158A9
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	2U	-	-	-	-	-	-	-	-	2U	2U	2U	10U	2U	2U	2U	2U	4U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	2U	-	-	-	-	-	-	-	-	2U	2U	2U	10U	2U	2U	2U	2U	4U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	3U	-	-	-	-	-	-	-	-	3U	12	3U	15U	3U	3U	3U	3U	6U	3U
2-Hexanone	ug/L	N	300	-	-	-	-	-	3U	-	-	-	-	-	-	-	-	3U	3U	3U	15U	3U	3U	3U	3U	6U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	3U	-	-	-	-	-	-	-	-	3U	3U	3U	15U	3U	3U	3U	3U	6U	3U
Acetone	ug/L	N	6000	-	-	-	-	-	6U	-	-	-	-	-	-	-	-	6U	15J	6U	30U	6U	6U	6U	36	20J	17J
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	1U	0.5U
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
Bromoform	ug/L	N	4	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	2J	5U	1U	1U	1U	1U	2U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
Chlorobenzene	ug/L	N	50	-	-	-	-	-	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U
Chloroethane	ug/L	N	5	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
Chloroform	ug/L	N	70	-	-	-	-	-	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
Cyclohexane	ug/L	N	100	-	-	-	-	-	2U	-	-	-	-	-	-	-	-	2U	2U	2U	10U	2U	2U	2U	2U	4U	2U
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	2U	-	-	-	-	-	-	-	-	2U	2U	2U	10UJ	2U	2U	2U	2U	4U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	0.5U	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	1U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	2U	-	-	-	-	-	-	-	-	2U	2U	2U	10U	2U	2U	2U	2U	4U	2U
Styrene	ug/L	N	100	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	4U	0.7U	0.7U	0.7U	0.7U	1U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	2U	-	-	-	-	-	-	-	-	2U	2U	2U	10U	2U	2U	2U	2U	4U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-165R	MW-165R	MW-165R	MW-165R
			Sample Date	09/21/2007	03/04/2008	09/30/2008	02/18/2009	10/13/2009	03/11/2010	08/18/2010	04/26/2011	09/22/2011	06/07/2012	09/05/2012	05/21/2013	10/02/2013	06/25/2014	11/06/2014	07/15/2015	03/18/2016	09/13/2016	03/29/2017	08/30/2017	04/26/2017	09/06/2017	11/30/2017	11/30/2017
			Field Sample ID	M158B1	M158B2X	M158B3X	M158B4X	M158B5X	M158B6X	M158B7X	M158B8X	M158B9X	M158C1X	M158C2X	M158C3X	M158C4X	M158C5X	M158C6X	M158C7X	M158C8X	M158C9X	M158D1X	M158D2X	M165RA5X	M165RA6X	D1130178	M165RA7X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	10U	10U	20U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10UJ	2U	2U	2U	20U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	10U	10U	20U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10UJ	2U	2U	2U	20U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
1,3-Dichlorobenzene	ug/L	N	600	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	15U	15U	30U	3U	15U	3U	3U	3U	3J	6J	3U	3U	3U	3U	3U	15UJ	6J	3U	5J	30U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	15U	15U	30U	3U	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15UJ	3U	3U	3U	30U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	15U	15U	30U	3U	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15UJ	3U	3U	3U	30U	3U	3U	3U	3U
Acetone	ug/L	N	6000	30U	30U	60U	42	30U	9J	6U	6U	21	57	6U	12J	6U	6U	6U	30UJ	45J	7J	20J	60U	6U	6U	6U	6U
Benzene	ug/L	N	1	3U	3U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	3	2	2
Bromodichloromethane	ug/L	N	1	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
Carbon Dioxide	ug/L	N	NS	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5UJ	0.5UJ
Chlorobenzene	ug/L	N	50	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.7J	0.6J	0.6J
cis-1,3-Dichloropropene	ug/L	N	1	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	10U	10U	20U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10UJ	2U	2U	2U	20U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	10U	10U	20U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	2	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	3U	3U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	10U	10U	20U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10UJ	2U	2U	2U	20U	2U	2U	0.5U	0.5U
Styrene	ug/L	N	100	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	4U	4U	7U	0.7U	4U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5UJ	0.5UJ
Trichloroethene (Trichloroethylene)	ug/L	N	1	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	10U	10U	20U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.7J	0.5U	0.5U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-165R	MW-166R	MW-166R	MW-166R	MW-166R	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167
			Sample Date	03/09/2018	04/26/2017	09/14/2017	12/15/2017	03/09/2018	04/10/2003	02/18/2004	08/12/2004	10/19/2004	01/13/2005	05/19/2005	07/26/2005	11/29/2005	02/09/2006	05/02/2006	07/11/2006	09/25/2007	06/05/2008	07/29/2009	07/29/2010	08/25/2011	07/03/2012	08/06/2013	08/12/2014
			Field Sample ID	M165RA8X	M166RD1X	M166RD2X	M166RD3X	M166RD4X	M167A1Y	M167A2	M167A3	M167A4X	M167A5X	M167A6X	M167A7X	M167A8X	M167A9X	M167B1X	M167B2X	M167B3X	M167B4X	M167B5X	M167B6X	M167B7X	M167B8X	M167B9X	M167C1X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	1U	5U	3U	0.5U	3J	7	6	10	0.8U	4J	4J	3J	48	3J	7	0.8U	4J	6	1J	4J	5	4J	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	1U	5U	3U	0.5U	45	190	22	54	8	21	63	95	870	45	120	3J	85	6	0.8U	14	3J	0.8U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	1U	5U	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	4U	20U	10UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	1U	5U	3U	0.5U	75	230	140	280	16	150	180	200	530	150	320	13	170	98	3J	77	73	31	0.6J
1,2,4-Trichlorobenzene	ug/L	N	9	1U	2U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	4U	20U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	2U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,3-Dichlorobenzene	ug/L	N	600	1U	2U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	2U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	6U	30UJ	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	6U	30UJ	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	6U	30UJ	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	12U	60U	30U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Benzene	ug/L	N	1	1	2J	5U	3U	0.6J	0.5U	0.5U	0.5U	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Bromoform	ug/L	N	4	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Carbon Dioxide	ug/L	N	NS	1U	2U	10U	5U	1U	-	-	-	-	-	-	50000	25000	16000	56000	33000	65000	41000	33000	73000	29000	45000	120000	72000
Carbon disulfide	ug/L	N	700	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Chlorobenzene	ug/L	N	50	0.5U	1U	5U	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Chloroethane	ug/L	N	5	0.5U	1U	5U	3U	0.5U	30	61	86	120	1U	92	24	5J	2J	46	30	2J	33	56	75	27	62	2J	23
Chloroform	ug/L	N	70	0.5U	1U	5U	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.8J	1U	5U	3U	0.5U	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	3J	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.9J	0.8U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Cyclohexane	ug/L	N	100	2U	4U	20U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	1U	5U	3U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	2.4J	1.0U	1.0U	1.0U	1.0U	2.1J	1.0U	3.0J	1.0U	13
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Ethylbenzene	ug/L	N	700	0.6J	3	5U	3J	2	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Isopropylbenzene	ug/L	N	700	1U	2U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	7200	5900	1900	7500	150	1000	9.8	3700	94	260	610	120	5100	22	3300	250	4000
Methyl acetate	ug/L	N	7000	1U	2U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	1U	5U	3U	0.5U	0.6J	0.5U	0.5U	0.6J	0.6J	0.7J	0.5U	0.5U	0.8J	0.8J	0.5J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	2U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	0.5U	4U	5U	3U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	2U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	1U	5U	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Toluene	ug/L	N	600	0.5U	2	5U	3U	0.6J	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	1U	5U	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1J	1U	1U	1U	1U	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	1U	5U	3U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	1U	5U	3U	0.5U	1U	1U	1J	3J	1U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1J	1U	1U	1U	0.5U
Xylene (total)	ug/L	N	1000	0.5U	9	5U	3U	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-167	MW-167	MW-167	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168
			Sample Date	12/03/2015	04/28/2016	06/15/2017	04/17/2003	02/10/2004	07/15/2004	10/08/2004	02/23/2005	05/05/2005	07/19/2005	12/01/2005	02/16/2006	05/02/2006	07/19/2006	05/30/2008	09/02/2009	07/27/2010	08/25/2011	06/19/2012	06/12/2013	08/01/2013	08/13/2014	12/02/2015	06/16/2017
			Field Sample ID	M167C2X	M167C3X	M167C4X	M168A1Y	M168A2A	M168A3	M168A4X	M168A5X	M168A6X	M168A7X	M168A8X	M168A9X	M168B1X	M168B2X	M168B3X	M168B4X	M168B5X	M168B6X	M168B7X	M168B8X	M168B9X	M168C1X	M168C2X	M168C4X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.5U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.5U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	0.8J	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	0.5U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	0.5U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	-	-	-	-
2-Hexanone	ug/L	N	300	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	-	-	-	-
Acetone	ug/L	N	6000	6U	60U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	6U	-	-	-	-
Benzene	ug/L	N	1	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	0.5U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
Bromoform	ug/L	N	4	0.5U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1UJ	-	-	-	-
Carbon Dioxide	ug/L	N	NS	1U	10U	1U	-	-	-	-	-	-	35000	43000	34000	39000	49000	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
Chlorobenzene	ug/L	N	50	0.5U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-
Chloroethane	ug/L	N	5	4	8J	6	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
Chloroform	ug/L	N	70	0.5U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	7J	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
Cyclohexane	ug/L	N	100	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-
Dibromochloromethane	ug/L	N	1	0.5U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-
Ethane	ug/L	N	NS	3.8J	5.7	8.9	-	-	-	-	-	-	1.3J	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	1.0U	1.0U	1.0U	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
Methane	ug/L	N	NS	760	1000	2100	-	-	2200	76	4200	1900	2400	29	19	4.9J	2.0U	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	0.5U	-	-	-	-
Methylcyclohexane	ug/L	N	100	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-
Styrene	ug/L	N	100	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-
Toluene	ug/L	N	600	0.5U	5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-
Xylene (total)	ug/L	N	1000	0.5U	5U	0.5U	0.8U	0.8U	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R
			Sample Date	04/29/2003	06/16/2003	07/02/2003	02/09/2004	07/15/2004	10/08/2004	02/23/2005	05/05/2005	07/19/2005	12/06/2005	02/17/2006	05/02/2006	07/19/2006	10/02/2007	06/03/2008	08/20/2009	08/03/2010	09/07/2011	06/28/2012	06/14/2013	06/14/2013	08/01/2013	06/24/2014	06/24/2014
			Field Sample ID	M169RA	M169RA2	M169RA3	M169RA4	M169RA5	M169RA6X	M169RA7X	M169RA8X	M169RA9X	M169RB1X	M169RB2X	M169RB3X	M169RB4X	M169RB5X	M169RB6X	M169RB7X	M169RB8X	M169RB9X	M169RC1X	M169RC2X	M169RC2X	M169RC3X	M169RC4X	M169RC4X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	130	9	150	82	170	77	140	120	110	110	130	100	120	110	100	69	79	73	67	49	-	54	20	-
1,1,1-Trichloroethane	ug/L	N	30	10	0.8U	10	5J	7	2J	5J	4J	3J	4J	4J	3J	3J	3J	2J	0.9J	1J	1J	0.8U	0.8U	-	0.8U	0.5U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	0.5U	-
1,1,2-Trichloroethane	ug/L	N	3	1	0.8U	2U	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.5U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	-
1,1-Dichloroethane	ug/L	N	50	44	3J	51	27	50	31	47	41	35	33	44	33	36	33	35	26	27	27	23	21	-	21	12	-
1,2,4-Trichlorobenzene	ug/L	N	9	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	-
1,2-Dibromoethane	ug/L	N	0	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	0.5U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	-
1,2-Dichloroethane	ug/L	N	2	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	0.5U	-
1,2-Dichloropropane	ug/L	N	1	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	0.5U	-
1,3-Dichlorobenzene	ug/L	N	600	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	-
1,4-Dichlorobenzene	ug/L	N	75	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3	3U	6U	3J	3U	3U	5J	3U	3U	3U	3U	3U	4J	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	-
2-Hexanone	ug/L	N	300	3	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	-
4-Methyl-2-pentanone	ug/L	N	100	3	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	-
Acetone	ug/L	N	6000	6	6U	12U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	6U	76	-
Benzene	ug/L	N	1	2	0.5U	2J	1J	2J	1J	2J	2J	1J	1J	2J	1J	1J	1J	1J	0.8J	1J	1J	0.8J	0.8J	-	0.7J	0.7J	-
Bromodichloromethane	ug/L	N	1	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	0.5U	-
Bromoform	ug/L	N	4	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	0.5U	-
Bromomethane (Methyl bromide)	ug/L	N	10	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	0.5U	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	130000	100000	130000	130000	130000	150000	150000	130000	140000	120000	97000	130000	-	130000	160000	-
Carbon disulfide	ug/L	N	700	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	-
Carbon Tetrachloride	ug/L	N	1	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	0.5U	-
Chlorobenzene	ug/L	N	50	0.8	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.5U	-
Chloroethane	ug/L	N	5	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	2	-
Chloroform	ug/L	N	70	0.8	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.5U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	0.5U	-
cis-1,2-Dichloroethene	ug/L	N	70	67	8	88	87	110	150	140	120	100	92	110	100	110	110	130	140	110	100	110	130	-	99	140	-
cis-1,3-Dichloropropene	ug/L	N	1	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	0.5U	-
Cyclohexane	ug/L	N	100	2	2J	4U	3J	2U	2U	2J	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	-
Dibromochloromethane	ug/L	N	1	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	0.5U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	0.5U	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	1.9J	1.0U	2.2J	1.9J	100U	2.9J	2.1J	2.4J	6.1	1.6J	2.6J	-	3.7	2.6J	-	17
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	1.5J	1.0U	1.4J	1.0U	1.7J	1.4J	1.0U	1.0J	1.4J	1.0U	1.0U	-	0.71	1.1J	-	11
Ethylbenzene	ug/L	N	700	0.8	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.5U	-
Isopropylbenzene	ug/L	N	700	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	-
Methane	ug/L	N	NS	-	-	-	-	1300	1200	1700	840	1000	920	820	690	1300	920	640	620	660	340	730	-	860	550	-	10000
Methyl acetate	ug/L	N	7000	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	-
Methyl-t-butyl ether	ug/L	N	70	0.5	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	-
Methylcyclohexane	ug/L	N	100	1	2J	2U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2J	1U	1U	1U	1U	1U	-	1U	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	-
Styrene	ug/L	N	100	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	-
Tetrachloroethene	ug/L	N	1	2	0.8U	2J	0.8U	2J	0.8U	1J	1J	1J	1J	1J	1J	1J	1J	0.9J	0.8U	1J	0.9J	0.9J	0.8U	-	0.8U	0.5U	-
Toluene	ug/L	N	600	0.7	0.7U	1U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	-	0.7U	0.5U	-
trans-1,2-Dichloroethene	ug/L	N	100	4	0.8U	6J	3J	6	5	6	5	5J	4J	5	5J	5	5	5J	5	5	5J	5	5J	-	5J	3	-
trans-1,3-Dichloropropene	ug/L	N	1	1	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	0.5U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1100	84	1400	680	1200	350	890	610	700	800	1000	840	820	730	790	520	650	650	630	480	-	490	120	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	0.5U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	20	3J	21	15	29	27	29	28	26	19	27	20	26	27	35	30	28	22	19	17	-	14	19	-
Xylene (total)	ug/L	N	1000	0.8	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.5U	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170
			Sample Date	08/26/2014	08/26/2014	10/27/2014	10/27/2014	10/27/2014	01/14/2015	01/14/2015	01/14/2015	04/27/2015	04/27/2015	07/13/2015	07/13/2015	10/13/2015	10/13/2015	11/07/2017	04/16/2003	02/18/2004	07/15/2004	10/12/2004	01/06/2005	05/19/2005	07/28/2005	12/16/2005	02/24/2006
			Field Sample ID	M169RC5X	M169RC5X	M169RC7X	M169RC7X	M169RC7X	M169RC9X	M169RC9X	M169RC9X	M169RD1X	M169RD1X	M169RD2X	M169RD2X	M169RD3X	M169RD3X	M169RD9X	M170A1Y	M170A2A	M170A3	M170A4X	M170A5X	M170A6X	M170A7X	M170A8X	M170A9X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	20	22	-	7	-	-	5	-	-	3	-	4	-	2	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	-	2U	-	-	2U	-	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	11	12	-	5	-	-	3	-	-	2	-	3	-	2	2	1U	1U	2J	1J	1U	1U	1J	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	-	1U	-	-	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	-	2U	-	-	2U	-	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	-	1U	-	-	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	-	1U	-	-	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	-	1U	-	-	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	-	3U	-	-	3U	-	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	3U	-	3U	-	-	3U	-	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	-	3U	-	-	3U	-	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	51	43	-	7J	-	-	6U	-	-	6U	-	6U	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Benzene	ug/L	N	1	0.9J	0.9J	-	0.7J	-	-	0.8J	-	-	0.7J	-	0.8J	-	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	180000	230000	-	220000	-	-	170000	-	-	110000	-	110000	-	95000	83000	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	-	1U	-	-	1U	-	-	1U	-	1U	-	1U	1U	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	5	4	-	3	-	-	3	-	-	1	-	1	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	160	150	-	86	-	-	86	-	-	71	-	76	-	30	39	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	-	2U	-	-	2U	-	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	-	0.5UJ	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	-	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	30	8.30	-	8.3	17.00	-	17	36.00n	-	42.00n	-	31.00n	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U
Ethene	ug/L	N	NS	-	11	2.40	-	2.4	0.70	-	0.7	1.40n	-	1.80n	-	1.60n	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U
Ethylbenzene	ug/L	N	700	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	-	1U	-	-	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	17000	16000.00	-	16000	15000.00	-	15000	12000.00n	-	12000.00n	-	9400.00n	-	-	-	-	2.0U	7.3	3.0J	2.0U	2.0U	2.0U	2.0U
Methyl acetate	ug/L	N	7000	1U	1U	-	1U	-	-	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	-	1U	-	-	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	-	2U	-	-	2U	-	-	2U	-	2U	-	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	-	1U	-	-	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	0.5U	-	0.5J	-	-	0.5J	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	4	3	-	2	-	-	3	-	-	2	-	2	-	1J	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	130	140	-	57	-	-	43	-	-	9	-	5	-	2	1	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	24	24	-	9	-	-	9	-	-	15	-	16	-	7	18	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183
			Sample Date	05/10/2006	07/21/2006	06/12/2008	10/10/2008	08/20/2009	11/05/2009	06/22/2010	10/26/2010	09/02/2011	12/08/2011	06/28/2012	09/11/2012	08/08/2013	11/01/2013	11/01/2013	02/04/2004	07/08/2004	10/21/2004	01/05/2005	05/17/2005	07/27/2005	11/29/2005	02/09/2006	04/26/2006
			Field Sample ID	M170B1X	M170B2X	M170B4X	M170B5X	M170B6X	M170B7X	M170B8X-100622	M170B9X	M170C1X	M170C2X	M170C3X	M170C4X	M170C5X	D1101131	M170C6X	M183A1A	M183A2	M183A3X	M183A4X	M183A5X	M183A6X	M183A7X	M183A8X	M183A9X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	9J	6U	17J	6U	6U	6U	6U	6U	6U	6U
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	80000	83000	52000	82000
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	1.0U	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U
Ethene	ug/L	N	NS	1.0U	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	2.0U	2.0U	2.0U	-	5.0U	5.0J	5.0U	10U	5.0U	5.0U	5.0U	5.0U	3.0U	3.0U	3.0U	-	10	2.0U	5.5	4.3J	2.8J	5.9	2.0U	4.3J
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184
			Sample Date	07/07/2006	05/22/2008	07/24/2009	08/03/2010	08/23/2011	06/19/2012	08/08/2013	09/15/2016	06/15/2017	02/05/2004	07/14/2004	10/12/2004	01/13/2005	05/12/2005	07/21/2005	12/01/2005	02/22/2006	05/09/2006	07/21/2006	05/28/2008	08/18/2009	07/27/2010	08/31/2011	06/27/2012
			Field Sample ID	M183B1X	M183B2X	M183B3X	M183B4X	M183B5X	M183B6X	M183B7X	M183B8X	M183B9X	M184A1A	M184A2	M184A3X	M184A4X	M184A5X	M184A6X	M184A7X	M184A8X	M184A9X	M184B1X	M184B2X	M184B3X	M184B4X	M184B5X	M184B7X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	-	-	-	-	-	-	-	-	7	4J	6	8U	3J	2J	2J	4J	8	13	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	-	-	-	-	-	-	-	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	-	-	-	-	-	-	-	-	33	34	28	21J	26	22	23	26	32	30	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	-	-	-	-	-	-	-	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	-	-	-	-	-	-	-	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	-	-	-	-	-	-	-	-	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	-	-	-	-	-	-	-	-	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	-	-	-	-	-
Acetone	ug/L	N	6000	6U	-	-	-	-	-	-	-	-	6U	6U	41	60U	6U	6U	6U	6U	6U	6U	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4J	4J	3J	5U	3J	3J	3J	3J	3J	4J	3J	3J	3J	3J	3J
Bromodichloromethane	ug/L	N	1	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Bromoform	ug/L	N	4	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Carbon Dioxide	ug/L	N	NS	55000	-	-	-	-	-	-	-	-	-	-	-	-	-	280000	680000	340000	320000	330000	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	-	-	-	-	-	-	-	-	1U	1U	3J	10U	1U	1U	2J	1U	1U	1U	-	-	-	-	-
Chloroform	ug/L	N	70	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	-	-	-	-	-	-	-	-	40	17	32	8U	18	10	13	22	48	69	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Cyclohexane	ug/L	N	100	2U	-	-	-	-	-	-	-	-	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	-	-	-	-	-	-	-	-	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	-	-	-	-	-
Ethane	ug/L	N	NS	1.0U	-	-	-	-	-	-	-	-	-	-	-	-	-	17	17	15	12	200U	-	-	-	-	-
Ethene	ug/L	N	NS	1.0U	-	-	-	-	-	-	-	-	-	-	-	-	-	21	23	20	13	22	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Methane	ug/L	N	NS	2.0U	-	-	-	-	-	-	-	-	-	9600	7700	15000	7300	5700	8300	8300	6300	4900	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	1U	-	-	-	-	-	-	-	-	1J	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	-	-	-	-	-	-	-	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	-	-	-	-	-
Styrene	ug/L	N	100	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.7U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	-	-	-	-	-	-	-	-	2J	2J	2J	8U	2J	2J	2J	2J	2J	3J	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	-	-	-	-	-	-	-	-	23	9	15	10U	9	5J	7	10	26	37	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	-	-	-	-	-	-	-	-	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	-	-	-	-	-	-	-	-	63	65	55	36J	47	33	45	55	56	50	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-184	MW-184	MW-184	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186
			Sample Date	06/16/2013	06/16/2013	08/08/2013	02/05/2004	07/14/2004	10/08/2004	01/13/2005	05/12/2005	07/19/2005	12/06/2005	02/22/2006	05/02/2006	07/19/2006	06/16/2013	10/21/2015	10/21/2015	11/10/2017	02/05/2004	07/15/2004	10/08/2004	02/23/2005	05/05/2005	07/19/2005	12/06/2005
			Field Sample ID	M184B8X	M184B8X	M184B9X	M185A1A	M185A2	M185A3X	M185A4X	M185A5X	M185A6X	M185A7X	M185A8X	M185A9X	M185B1X	M185B8X	M185C1X	M185C1X	M185C8X	M186A1	M186A2	M186A3X	M186A4X	M186A5X	M186A6X	M186A7X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	4J	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	8	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	7J	-	-	33	15J	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	34	6U	6U	6U	6U	6U	6U	6U	6U
Benzene	ug/L	N	1	2J	-	2J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	310000	-	-	-	-	-	-	-	9300	10000	11000	10000	14000	-	-	6500J	4000U	-	-	-	-	-	5400	6400
Carbon disulfide	ug/L	N	700	1U	-	-	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	-	-	7	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	33	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	19	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	-	0.05Jn	-	-	-	-	-	-	-	1.0U	1.0U
Ethene	ug/L	N	NS	-	1.8	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	-	0.59n	-	-	-	-	-	-	-	1.0U	1.0U
Ethylbenzene	ug/L	N	700	0.8U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	7500	-	-	14	11	24	17	14	12	11	9.6	15	-	320.00n	-	-	-	150	42	9.7	19	49	2.0U
Methyl acetate	ug/L	N	7000	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	0.5U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	-	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	-	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	2J	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	10	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	16	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188
			Sample Date	02/17/2006	05/09/2006	07/19/2006	10/04/2007	05/28/2008	08/20/2009	08/03/2010	09/07/2011	06/28/2012	08/01/2013	08/13/2014	12/02/2015	06/16/2017	06/25/2004	07/16/2004	10/14/2004	01/11/2005	05/17/2005	07/27/2005	12/20/2005	02/28/2006	05/16/2006	08/17/2006	10/18/2012
			Field Sample ID	M186A8X	M186A9X	M186B1X	M186B2X	M186B3X	M186B4X	M186B5X	M186B6X	M186B8X	M186B9X	M186C1X	M186C2X	M186C4X	M188A1	M188A2	M188A3X	M188A4X	M188A5X	M188A6X	M188A7X	M188A8X	M188A9X	M188B1X	D1018126
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	140	75	110	72	67	36	64	67	72	58	31
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	90	60	85	64	57	37	59	65	69	53	43
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	5J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	25	28	6UJ	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10	9	11	7	5	3J	6	7	7	5J	4J
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	4200J	9200	8700	15000	5400J	8400J	12000	7600J	6100J	8800J	240000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	6	4J	5	5	4J	3J	7	6	6	5J	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	6	4J	6	4J	4J	2J	3J	5J	5J	4J	3J
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	1.4J	2.3J	2.8J	2.9J	100U	-
Ethene	ug/L	N	NS	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	1.5J	2.0J	1.0U	2.2J	2.3J	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	39	4.8J	100	2.0U	23	44	12J	170	85	50	17000	2100	240	-	2800	4500	3700	3000	2800	4200	4700	3700	3700	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5J	3J	5J	4J	3J	2J	3J	3J	3J	3J	1J
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	3J	4J	2J	1J	2J	1U	2J	3J	3J	2J	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	5	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	5J	3J	4J	3J	2J	1J	2J	3J	2J	2J	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	67	47	65	56	42	29	50	50	50	34	26
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188
			Sample Date	10/18/2012	10/18/2012	12/13/2012	12/13/2012	02/14/2013	02/14/2013	04/22/2013	04/22/2013	06/12/2013	06/12/2013	09/20/2013	09/20/2013	01/10/2014	01/10/2014	04/10/2014	04/10/2014	06/19/2014	06/19/2014	09/04/2014	09/04/2014	10/29/2014	10/29/2014	10/29/2014	09/09/2015
			Field Sample ID	M188B2X	M188B2X	M188B3X	M188B3X	M188B4X	M188B4X	M188B5X	M188B5X	M188B6X	M188B6X	M188B7X	M188B7X	M188B8X	M188B8X	M188B9X	M188B9X	M188C1X	M188C1X	M188C2X	M188C2X	M188C3X	M188C3X	M188C3X	M188C5X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	32	-	24	-	20	-	20	-	0.8U	-	28	-	1J	-	19	-	13	-	-	0.5U	-	40	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	2UJ	-	-
1,1-Dichloroethane	ug/L	N	50	42	-	31	-	35	-	32	-	1U	-	40	-	2J	-	32	-	21	-	-	0.5U	-	51	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	1U	-	1U	-	1U	-	1U	-	1UJ	-	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	2UJ	-	-
1,2-Dibromoethane	ug/L	N	0	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	-
1,2-Dichloroethane	ug/L	N	2	1U	-	1U	-	1U	-	1UJ	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	-	0.5UJ	-	0.5UJ	-	-
1,2-Dichloropropane	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	3U	-	3U	-	3UJ	-	3U	-	3U	-	3U	-	3U	-	3U	-	-	3U	-	3UJ	-	-
2-Hexanone	ug/L	N	300	3U	-	3U	-	3U	-	3UJ	-	3U	-	3U	-	3U	-	3U	-	3U	-	-	3U	-	3UJ	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	-	3U	-	3U	-	3UJ	-	3U	-	3U	-	3U	-	3U	-	3U	-	-	3U	-	3UJ	-	-
Acetone	ug/L	N	6000	6U	-	6U	-	6U	-	6UJ	-	6U	-	6U	-	6U	-	6U	-	6U	-	-	6U	-	6UJ	-	-
Benzene	ug/L	N	1	4J	-	3J	-	4J	-	3J	-	0.5U	-	3J	-	0.5U	-	3	-	2	-	-	0.5U	-	3	-	-
Bromodichloromethane	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
Bromoform	ug/L	N	4	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	-	1U	-	1U	-	1UJ	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
Carbon Dioxide	ug/L	N	NS	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	-	1U	-	1U	-	1UJ	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	-	0.5UJ	-	0.5UJ	-	-
Chlorobenzene	ug/L	N	50	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
Chloroethane	ug/L	N	5	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
Chloroform	ug/L	N	70	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
cis-1,2-Dichloroethene	ug/L	N	70	3J	-	3J	-	3J	-	3J	-	0.8U	-	3J	-	0.8U	-	3	-	2	-	-	0.5U	-	4	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
Cyclohexane	ug/L	N	100	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	2UJ	-	-
Dibromochloromethane	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	0.5U	-	0.5U	-	-	0.5U	-	1UJ	-	-
Ethane	ug/L	N	NS	-	2.1	-	1.5	-	2	-	2.3	-	0.015J	-	2.7	-	0.098	-	2.3	-	2	0.09	-	3.00	-	3	1.70n
Ethene	ug/L	N	NS	-	3.2	-	1.6	-	2	-	2.1	-	0.036	-	2.5	-	0.14	-	1.5	-	0.89	0.20	-	2.40	-	2.4	1.40n
Ethylbenzene	ug/L	N	700	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
Isopropylbenzene	ug/L	N	700	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	-
Methane	ug/L	N	NS	-	2500	-	1600	-	3600	-	3000	-	9.8	-	2600	-	92	-	1800	-	1800	320.00	-	1800.00	-	1800	1100.00n
Methyl acetate	ug/L	N	7000	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	-
Methyl-t-butyl ether	ug/L	N	70	1J	-	0.6J	-	0.7J	-	0.7J	-	0.5U	-	0.7J	-	0.5U	-	0.5J	-	0.5U	-	-	0.5U	-	0.8J	-	-
Methylcyclohexane	ug/L	N	100	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	2UJ	-	-
Styrene	ug/L	N	100	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	-
Tetrachloroethene	ug/L	N	1	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
Toluene	ug/L	N	600	0.7U	-	0.7U	-	0.7U	-	0.7U	-	0.7U	-	0.7U	-	0.7U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1J	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	-	0.5U	-	0.8J	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	27	-	24	-	20	-	20	-	1U	-	25	-	1U	-	19	-	14	-	-	0.5U	-	25	-	-
Xylene (total)	ug/L	N	1000	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189
			Sample Date	09/09/2015	10/20/2015	10/20/2015	02/11/2016	05/24/2016	08/10/2016	11/09/2016	05/26/2017	06/25/2004	07/19/2004	10/14/2004	01/11/2005	05/17/2005	07/27/2005	12/20/2005	02/28/2006	05/16/2006	08/17/2006	10/17/2012	10/17/2012	06/12/2013	06/12/2013	06/19/2014	06/19/2014
			Field Sample ID	M188C5X	M188C6X	M188C6X	M188C7X	M188C8X	M188C9X	M188D1X	M188D2X	M189A1	M189A2	M189A3X	M189A4X	M189A5X	M189A6X	M189A7X	M189A8X	M189A9X	M189B1X	M189B2X	M189B2X	M189B3X	M189B3X	M189B4X	M189B4X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	6	-	2	0.5U	9	6	5	0.8J	160	180	150	110	110	130	140	130	120	150	71	-	4J	-	35	-
1,1,1-Trichloroethane	ug/L	N	30	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-
1,1,2-Trichloroethane	ug/L	N	3	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-
1,1-Dichloroethane	ug/L	N	50	8	-	2	1	13	7	5	2	47	54	43	30	32	40	39	39	35	39	25	-	1J	-	11	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-
1,2-Dibromoethane	ug/L	N	0	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-
1,2-Dichloroethane	ug/L	N	2	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-
1,2-Dichloropropane	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-
1,4-Dichlorobenzene	ug/L	N	75	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	3U	-
2-Hexanone	ug/L	N	300	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	3U	-
4-Methyl-2-pentanone	ug/L	N	100	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	3U	-
Acetone	ug/L	N	6000	7J	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	6U	-	6U	-
Benzene	ug/L	N	1	0.6J	-	0.5U	0.5U	1	0.5U	0.5U	0.5U	1J	2J	2J	1J	1J	1J	1J	1J	1J	1J	0.9J	-	0.5U	-	0.5J	-
Bromodichloromethane	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-
Bromoform	ug/L	N	4	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-
Carbon Dioxide	ug/L	N	NS	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-
Chlorobenzene	ug/L	N	50	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-
Chloroethane	ug/L	N	5	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-
Chloroform	ug/L	N	70	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-
cis-1,2-Dichloroethene	ug/L	N	70	0.7J	-	0.5U	0.5U	1	0.6J	0.5J	0.5U	36	42	37	27	28	34	36	37	35	39	37	-	3J	-	21	-
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-
Cyclohexane	ug/L	N	100	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-
Dibromochloromethane	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	0.5U	-
Ethane	ug/L	N	NS	-	1.10n	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	100U	-	0.94	-	0.13	-	0.55
Ethene	ug/L	N	NS	-	1.20n	-	-	-	-	-	-	-	-	-	-	-	2.0J	2.2J	2.2J	1.3J	2.7J	-	2.2	-	0.56	-	1.4
Ethylbenzene	ug/L	N	700	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-
Isopropylbenzene	ug/L	N	700	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-
Methane	ug/L	N	NS	-	620.00n	-	-	-	-	-	-	-	1700	3000	3500	4200	2000	1900	2900	2400	1900	-	1000	-	2400	-	720
Methyl acetate	ug/L	N	7000	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-
Methylcyclohexane	ug/L	N	100	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-
Styrene	ug/L	N	100	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-
Tetrachloroethene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-
Toluene	ug/L	N	600	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	-	0.7U	-	0.5U	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	18	22	17	18	16	16	18	23	19	26	11	-	1J	-	4	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	0.5U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	5	-	1	0.5J	10	5	2	0.5U	98	90	83	64	69	62	79	78	70	64	52	-	4J	-	31	-
Xylene (total)	ug/L	N	1000	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190
			Sample Date	09/04/2014	09/04/2014	10/29/2014	10/29/2014	10/29/2014	09/09/2015	09/09/2015	09/09/2015	10/20/2015	10/20/2015	02/11/2016	05/24/2016	08/10/2016	11/09/2016	05/26/2017	09/16/2004	05/10/2005	09/26/2005	06/30/2006	11/02/2006	06/21/2007	09/27/2007	05/20/2008	10/10/2008
			Field Sample ID	M189B5X	M189B5X	M189B6X	M189B6X	M189B6X	D0909155	M189B8X	M189B8X	M189B9X	M189B9X	M189C1X	M189C2X	M189C3X	M189C4X	M189C5X	M190A1	M190A2	M190A3	M190A4X	M190A5X	M190A6X	M190A7X	M190A8X	M190A9X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	19	-	41	-	50	-	50	-	51	16	46	18	37	2	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	-	2UJ	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	7	-	13	-	16	-	15	-	16	5	13	5	10	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	-	2UJ	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	0.5UJ	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	-	3UJ	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	-	3U	-	3UJ	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	3U	-	3UJ	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	-	6U	-	6UJ	-	6U	-	6U	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Benzene	ug/L	N	1	-	0.5U	-	0.7J	-	0.8J	-	0.8J	-	0.8J	0.5U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	-	0.5UJ	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	13	-	25	-	29	-	28	-	29	11	28	12	23	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	-	2U	-	2UJ	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	0.5U	-	1UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	0.0080J	-	1.10	-	1.1	-	1.60n	-	1.60n	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	0.02J	-	2.20	-	2.2	-	2.20n	-	2.10n	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	1.10	-	920.00	-	920	-	1600.00n	-	1200.00n	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	-	2UJ	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	0.5U	-	0.5J	-	0.5U	-	0.5U	-	0.5J	0.5U	0.5J	0.5U	0.5J	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	3	-	4	-	7	-	7	-	8	3	5	2	5	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	18	-	33	-	37	-	37	-	34	10	28	14	17	1	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191
			Sample Date	09/17/2009	11/05/2009	08/10/2010	08/18/2011	06/20/2012	08/28/2013	08/20/2014	11/13/2017	02/28/2018	06/25/2004	07/19/2004	10/14/2004	01/11/2005	05/17/2005	07/27/2005	12/20/2005	02/28/2006	05/16/2006	08/17/2006	10/17/2012	10/17/2012	06/11/2013	06/11/2013	09/09/2015
			Field Sample ID	M190B1X	M190B2X	M190B3X	M190B4X	M190B5X	M190B6X	M190B7X	M190C4X	M190C5X	M191A1	M191A2	M191A3X	M191A4X	M191A5X	M191A6X	M191A7X	M191A8X	M191A9X	M191B1X	M191B2X	M191B2X	M191B3X	M191B3X	M191B4X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	-	-	-	-	-	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	-	-	-	-	-	3U	3U	6J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	-
2-Hexanone	ug/L	N	300	3U	3U	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	-
Acetone	ug/L	N	6000	6U	6U	-	-	-	-	-	6U	6U	49	24	14J	6U	10J	6U	22	27	10J	22	6U	-	6U	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
Bromoform	ug/L	N	4	1U	1U	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
Carbon disulfide	ug/L	N	700	1U	1U	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-
Chloroethane	ug/L	N	5	1U	1U	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	-	-	-	-	-	0.5U	0.5U	2J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	4J	2J	0.8U	-	0.8U	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
Cyclohexane	ug/L	N	100	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	-	-	-	-	-	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2J	2.3J	1.9J	4.4J	100U	-	2.9	-	2.8	2.50n
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	100U	-	0.1	-	0.018J	0.0030Un
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	10000	10000	6200	10000	7000	6200	6700	19000	12000	-	12000	-	11000	12000.00n
Methyl acetate	ug/L	N	7000	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	-	-	-	-	-	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-
Styrene	ug/L	N	100	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	-	0.7U	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	-	-	-	-	-	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1J	1U	1U	-	1U	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208
			Sample Date	09/09/2015	10/20/2015	10/20/2015	02/11/2016	05/24/2016	08/10/2016	11/09/2016	05/26/2017	03/08/2005	08/18/2005	03/14/2006	07/13/2006	10/27/2006	04/11/2007	09/05/2007	03/20/2008	03/20/2008	09/03/2008	03/13/2009	10/01/2009	04/08/2010	05/10/2011	07/09/2013	12/15/2015
			Field Sample ID	M191B4X	M191B5X	M191B5X	M191B6X	M191B7X	M191B8X	M191B9X	M191C1X	M208A1X	M208A2X	M208A3X	M208A4X	M208A5X	M208A6X	M208A7X	D0320081	M208A8X	M208A9X	M208B1X	M208B2X	M208B3X	M208B4X	M208B5X	M208B6
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-
1,1-Dichloroethane	ug/L	N	50	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-
1,2-Dibromoethane	ug/L	N	0	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
1,2-Dichloropropane	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-
2-Hexanone	ug/L	N	300	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-
Acetone	ug/L	N	6000	6U	-	6U	12J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Bromoform	ug/L	N	4	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Carbon Dioxide	ug/L	N	NS	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Chlorobenzene	ug/L	N	50	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-
Chloroethane	ug/L	N	5	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Chloroform	ug/L	N	70	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Cyclohexane	ug/L	N	100	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	3J	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-
Dibromochloromethane	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-
Ethane	ug/L	N	NS	-	2.10n	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	0.0040Un	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Isopropylbenzene	ug/L	N	700	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Methane	ug/L	N	NS	-	7800.00n	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-
Methylcyclohexane	ug/L	N	100	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-
Styrene	ug/L	N	100	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-
Toluene	ug/L	N	600	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Xylene (total)	ug/L	N	1000	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-208	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211
			Sample Date	06/13/2017	03/08/2005	08/23/2005	03/14/2006	07/13/2006	10/27/2006	04/05/2007	09/05/2007	03/20/2008	09/03/2008	03/13/2009	10/01/2009	04/08/2010	10/26/2010	05/10/2011	07/09/2013	11/25/2015	06/13/2017	02/01/2005	06/01/2005	10/27/2005	05/25/2006	11/07/2006	05/24/2007
			Field Sample ID	M208B7	M209A1X	M209A2X	M209A3X	M209A4X	M209A5X	M209A6X	M209A7X	M209A8X	M209A9X	M209B1X	M209B2X	M209B3X	M209B4X	M209B5X	M209B6X	M209B7X	M209B8X	M211A1X	M211A2X	M211A3X	M211A4X	M211A5X	M211A6X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	4J	3U	3U	3U
2-Hexanone	ug/L	N	300	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	-	6U	6U	6U	6U	6J	9J	6U	6U	6U	6U	6U	6U	6U	7J	-	-	-	7J	7J	52	21	18J	15J
Benzene	ug/L	N	1	0.5U	0.8J	0.8J	0.7J	0.6J	0.5U	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.9J	0.5U	0.5U	0.5J
Bromodichloromethane	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	-	22	11	14	7	4J	8	7	5	7	7	7	7	8	8	-	-	-	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	4J	1J	4J	0.8U	0.8U	3J	1J	1J	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	1J	0.8U	4J	2J	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	1J	1U	2J	1U	1J	2J	2J	2J	1U	2J	1U	2J	1U	1J	-	-	-	53	1U	3J	10	34	30
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	15	6	8	4J	2J	3J	2J	2J	2J	3J	3J	4J	3J	4J	-	-	-	2J	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.5U	7	1J	1J	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	1J	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211
			Sample Date	12/18/2007	06/24/2008	10/30/2008	05/19/2009	11/24/2009	06/08/2010	09/23/2010	06/16/2011	03/14/2012	06/26/2013	05/22/2014	07/02/2014	08/05/2014	09/26/2014	10/30/2014	03/12/2015	03/24/2015	06/08/2015	09/16/2015	11/16/2015	12/17/2015	01/14/2016	04/08/2016	07/22/2016
			Field Sample ID	M211A7X	M211A8X	M211A9X	M211B1X	M211B2X	M211B3X-100608	M211B4X	M211B5X	M211B6X	M211B7X	M211B8	M211B9X	M211C1X	M211C2	M211C3	M211C4X	M211C5	M211C6	M211C7	M211C8	M211C9X	M211D1	M211D2	M211D3
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5UJ	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	20U	2U	2U	2U	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	20U	2U	2U	2U	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	30U	3U	3U	3U	-	-	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	15U	3U	3U	3U	5J
2-Hexanone	ug/L	N	300	3U	3U	3U	30U	3U	3U	3U	-	-	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	15U	3U	3UJ	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	30U	3U	3U	3U	-	-	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	15U	3U	3UJ	3U	3U
Acetone	ug/L	N	6000	10J	8J	6U	60U	12J	11J	11J	-	-	6U	6U	14J	13J	6U	6U	6J	9J	6U	26J	30U	12J	6U	6U	6U
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.6J	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5UJ	0.5U
Carbon Dioxide	ug/L	N	NS	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	2U	2U	20U	2U	2U	2U	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	4J	2U	10U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	20U	2U	2U	2U	-	-	2U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	52	3J	16	10U	22	11	7	-	-	27	38	5J	11J	1U	1U	24	24	39	7	5U	32	1U	2J	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	-	-	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	10U	1U	1U	1U	-	-	1J	1U	1U	1UJ	1U	1U	1U	1U	1J	1U	5U	1J	1U	1U	1UJ
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	20U	2U	2U	2U	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.6J	0.5U	0.6J	0.5U	3U	0.5U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	20U	2U	2U	2U	-	-	2U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.9J	1J	0.6J	0.8J	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.7J	0.5U	3U	0.6J	0.5U	0.5U	0.5U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	290	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-211	MW-211	MW-211	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216
			Sample Date	12/08/2016	01/19/2017	04/18/2017	03/02/2005	03/17/2005	05/05/2005	07/21/2005	12/01/2005	02/16/2006	04/28/2006	07/11/2006	10/02/2007	06/03/2008	07/28/2009	08/03/2010	08/25/2011	04/04/2012	04/04/2012	06/15/2012	12/13/2012	12/13/2012	12/13/2012	02/13/2013	02/13/2013
			Field Sample ID	M211D4	M211D5	M211D6	M216A1	M216A2X	M216A3X	M216A4X	M216A5X	M216A6X	M216A7X	M216A8X	M216A9X	M216B1X	M216B2X	M216B3X	M216B4X	M216B5X	M216B5X	M216B6X	D1213128	M216B8X	M216B8X	M216B9X	M216B9X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	1U	0.5U	440	450	320	280	320	330	310	280	350	400	350	490	460	-	470	430	400	400	-	460	-
1,1,1-Trichloroethane	ug/L	N	30	0.5U	1UJ	0.5U	90	96	91	55	57	53	61	49	180	280	240	260	210	-	190	260	160	150	-	170	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
1,1,2-Trichloroethane	ug/L	N	3	0.5U	1U	0.5U	2J	0.8U	2J	2J	1J	1J	2J	1J	0.8U	1J	1J	2J	2J	-	1J	1J	1J	1J	-	1J	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U	-	2U	-
1,1-Dichloroethane	ug/L	N	50	0.5U	1U	0.5U	420	460	370	360	370	390	330	340	310	320	260	190	210	-	180	190	160	160	-	150	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U	-	2U	-
1,2-Dibromoethane	ug/L	N	0	0.5U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
1,2-Dichloroethane	ug/L	N	2	0.5U	1U	0.5U	1U	1U	1U	1U	1U	3J	1U	1U	1U	3J	3J	1U	1U	-	1U	1U	1U	1U	-	1U	-
1,2-Dichloropropane	ug/L	N	1	0.5U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
1,3-Dichlorobenzene	ug/L	N	600	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
1,4-Dichlorobenzene	ug/L	N	75	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3UJ	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	3U	-	3U	-
2-Hexanone	ug/L	N	300	3UJ	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	3U	-	3U	-
4-Methyl-2-pentanone	ug/L	N	100	3UJ	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	3U	-	3U	-
Acetone	ug/L	N	6000	6U	12U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	6U	6U	6U	6U	-	6U	-
Benzene	ug/L	N	1	0.5U	1U	0.5U	93	99	82	54	41	72	83	61	46	77	88	150	140	-	120	110	84	84	-	81	-
Bromodichloromethane	ug/L	N	1	0.5U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
Bromoform	ug/L	N	4	0.5U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
Carbon Dioxide	ug/L	N	NS	1U	2U	1U	-	-	-	220000	470000	240000	240000	230000	250000	270000	200000	230000	220000	-	160000	180000	-	240000	-	250000	-
Carbon disulfide	ug/L	N	700	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
Carbon Tetrachloride	ug/L	N	1	0.5U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
Chlorobenzene	ug/L	N	50	0.5U	1U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	0.8U	-	0.8U	-
Chloroethane	ug/L	N	5	0.5U	1U	0.5U	92	110	100	70	1U	100	110	89	120	180	120	95	81	-	73	79	85	83	-	69	-
Chloroform	ug/L	N	70	0.5U	1U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	0.8U	-	0.8U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	1U	0.5U	15	15	15	11	11	12	13	10	8	7	7	6	6	-	7	7	7	7	-	6	-
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
Cyclohexane	ug/L	N	100	2UJ	4U	2U	2J	2U	2U	2U	2U	2U	2U	2U	2U	2U	3J	6	7	-	8	7	4J	4J	-	5J	-
Dibromochloromethane	ug/L	N	1	0.5U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	1U	0.5U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U	-	2U	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	15	14	22	20	20	12	19	18	31	39	14	-	15	-	-	20	-	12
Ethene	ug/L	N	NS	-	-	-	-	-	-	5.4	4.1J	4.4J	4.7J	4.3J	3.7J	4.1J	3.2J	3.8J	4.2J	2.0	-	2.1J	-	-	2.2	-	1.5
Ethylbenzene	ug/L	N	700	0.5U	1U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	0.8U	-	0.8U	-
Isopropylbenzene	ug/L	N	700	1U	2U	7	1J	1J	1J	1U	1U	1U	1J	1U	1U	1U	1J	2J	2J	-	3J	3J	2J	2J	-	2J	-
Methane	ug/L	N	NS	-	-	-	-	6600	4200	3200	4200	4600	4000	3900	3000	4100	3400	3500	4800	3700	-	4500	-	-	4900	-	3600
Methyl acetate	ug/L	N	7000	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	1U	0.5U	3J	3J	5J	4J	7	2J	1J	1J	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	-	0.5U	-
Methylcyclohexane	ug/L	N	100	1J	2U	1U	1J	1J	1J	1U	1U	1U	1J	1U	1U	3J	1J	4J	2J	-	3J	2J	1J	2J	-	2J	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2UJ	4U	2U	5J	5	5J	3J	3J	4J	5J	3J	2U	4J	2U	2J	2J	-	2J	2J	2U	2U	-	2J	-
Styrene	ug/L	N	100	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
Tetrachloroethene	ug/L	N	1	0.5U	1U	0.5U	7	7	7	5J	6	5	7	5J	5J	6	7	7	7	-	9	8	6	7	-	8	-
Toluene	ug/L	N	600	0.5U	1U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	-	0.7U	0.7U	0.7U	0.7U	-	0.7U	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	1U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	0.8U	-	0.8U	-
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	-	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	1U	0.5U	32	34	32	20	22	27	29	23	23	28	28	32	29	-	31	32	26	26	-	27	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	1U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U	-	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	1U	0.5U	51	59	51	31	40	48	44	36	36	52	29	31	31	-	24	26	26	24	-	22	-
Xylene (total)	ug/L	N	1000	0.5U	1U	0.5U	2J	2J	2J	1J	1J	1J	2J	1J	1J	0.9J	1J	2J	1J	-	2J	1J	1J	1J	-	1J	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216
			Sample Date	04/15/2013	04/15/2013	06/04/2013	07/30/2013	09/19/2013	09/19/2013	12/18/2013	12/18/2013	03/12/2014	03/12/2014	03/12/2014	06/24/2014	06/24/2014	08/12/2014	08/28/2014	08/28/2014	08/28/2014	10/31/2014	10/31/2014	10/31/2014	01/19/2015	01/19/2015	01/19/2015	04/23/2015
			Field Sample ID	M216C1X	M216C1X	M216C2X	M216C3X	M216C4	M216C4	M216C5X	M216C5X	D0312145	M216C6X	M216C6X	M216C7X	M216C7X	M216C8X	D0828145	M216C9X	M216C9X	M216D1X	M216D1X	M216D1X	M216D3X	M216D3X	M216D3X	M216D4X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	460	-	420	390	350	-	210	-	280	270	-	220	-	89	6J	-	5J	-	15	-	-	11	-	-
1,1,1-Trichloroethane	ug/L	N	30	190	-	180	170	180	-	14	-	41	39	-	28	-	17	8J	-	9J	-	2	-	-	3	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
1,1,2-Trichloroethane	ug/L	N	3	1J	-	1J	1J	1J	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	2U	2U	2U	-	2U	-	2U	2U	-	2U	-	2U	2UJ	-	2UJ	-	2U	-	-	2U	-	-
1,1-Dichloroethane	ug/L	N	50	160	-	140	130	140	-	120	-	160	150	-	140	-	80	20J	-	17J	-	33	-	-	28	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	1U	-	1U	1UJ	-	1UJ	-	1U	-	-	1UJ	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	2U	2U	2U	-	2U	-	2U	2U	-	2U	-	2U	2UJ	-	2UJ	-	2U	-	-	2U	-	-
1,2-Dibromoethane	ug/L	N	0	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	1U	-	1U	1UJ	-	1UJ	-	1U	-	-	1U	-	-
1,2-Dichloroethane	ug/L	N	2	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
1,2-Dichloropropane	ug/L	N	1	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	1U	-	1U	1UJ	-	1UJ	-	1U	-	-	1U	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	1U	-	1U	1UJ	-	1UJ	-	1U	-	-	1U	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	3U	3U	3U	-	14	-	21	22	-	6J	-	4J	3UJ	-	3UJ	-	3U	-	-	3U	-	-
2-Hexanone	ug/L	N	300	3U	-	3U	3U	3U	-	3U	-	3U	3U	-	3U	-	3U	3UJ	-	3UJ	-	3U	-	-	3U	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	-	3U	3U	3U	-	3U	-	3U	3U	-	3U	-	3U	3UJ	-	3UJ	-	3U	-	-	3U	-	-
Acetone	ug/L	N	6000	6U	-	6U	9J	6U	-	120	-	2700	2700	-	310	-	59	44J	-	35J	-	26	-	-	20J	-	-
Benzene	ug/L	N	1	96	-	83	64	80	-	35	-	40	38	-	44	-	20	3J	-	3J	-	12	-	-	16	-	-
Bromodichloromethane	ug/L	N	1	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
Bromoform	ug/L	N	4	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
Carbon Dioxide	ug/L	N	NS	270000	-	240000	230000	200000	-	230000	-	-	400000	-	250000	-	290000	-	-	63000	-	170000	-	-	160000	-	-
Carbon disulfide	ug/L	N	700	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	1U	-	1U	1UJ	-	1UJ	-	1U	-	-	1U	-	-
Carbon Tetrachloride	ug/L	N	1	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
Chlorobenzene	ug/L	N	50	0.8U	-	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
Chloroethane	ug/L	N	5	62	-	52	52	53	-	35	-	45	43	-	43	-	38	6J	-	5J	-	33	-	-	55	-	-
Chloroform	ug/L	N	70	0.8U	-	0.8U	0.8U	0.8U	-	2J	-	0.8U	0.8U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	6	-	5	5J	5	-	4J	-	5J	4J	-	14	-	6	0.5UJ	-	0.5UJ	-	0.9J	-	-	0.9J	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
Cyclohexane	ug/L	N	100	6	-	5	4J	7	-	2U	-	2U	2U	-	3J	-	2U	2UJ	-	2UJ	-	2U	-	-	2U	-	-
Dibromochloromethane	ug/L	N	1	1UJ	-	1U	1U	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	-	2U	2U	2U	-	2U	-	2U	2U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
Ethane	ug/L	N	NS	-	18	-	9.9	-	13	-	8	-	-	12	-	7.8	24	-	1.40	-	3.40	-	3.4	7.90	-	7.9	11.00n
Ethene	ug/L	N	NS	-	2	-	1.1J	-	1.3	-	1.4	-	-	2.1	-	6.1	23	-	3.20	-	21.00	-	21	10.00	-	10	7.40n
Ethylbenzene	ug/L	N	700	0.8U	-	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
Isopropylbenzene	ug/L	N	700	3J	-	3J	2J	3J	-	1U	-	1U	1U	-	1J	-	1U	1UJ	-	1UJ	-	1U	-	-	1U	-	-
Methane	ug/L	N	NS	-	4500	-	5300	-	4200	-	2100	-	-	4300	-	9900	18000	-	9000.00	-	12000.00	-	12000	16000.00	-	16000	18000.00n
Methyl acetate	ug/L	N	7000	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	1U	-	1U	1UJ	-	1UJ	-	1U	-	-	1U	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	0.5U	0.5U	0.5U	-	0.6J	-	0.7J	0.6J	-	0.6J	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
Methylcyclohexane	ug/L	N	100	2J	-	2J	1J	2J	-	1U	-	1U	1U	-	1U	-	1U	1UJ	-	1UJ	-	1U	-	-	1U	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2J	-	2U	2U	2U	-	2J	-	2J	2U	-	2U	-	2U	2UJ	-	2UJ	-	2U	-	-	2U	-	-
Styrene	ug/L	N	100	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	1U	-	1U	1UJ	-	1UJ	-	1U	-	-	1U	-	-
Tetrachloroethene	ug/L	N	1	8	-	7	6	6	-	0.8U	-	3J	3J	-	1	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
Toluene	ug/L	N	600	0.7U	-	0.7U	0.7U	0.7U	-	0.7U	-	0.7U	0.7U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	-	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	-	1U	1U	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	31	-	26	24	25	-	4J	-	14	13	-	1	-	0.8J	0.5UJ	-	0.5UJ	-	0.8J	-	-	1	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	-	2U	2U	2U	-	2U	-	2U	2U	-	0.5U	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	23	-	18	18	20	-	18	-	9	9	-	21	-	18	2J	-	1J	-	10	-	-	13	-	-
Xylene (total)	ug/L	N	1000	1J	-	1J	0.8U	0.9J	-	0.8U	-	0.8U	0.8U	-	0.5J	-	0.5U	0.5UJ	-	0.5UJ	-	0.5U	-	-	0.5U	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217
			Sample Date	04/23/2015	04/23/2015	07/09/2015	07/09/2015	10/12/2015	10/12/2015	11/07/2017	02/22/2018	02/16/2005	05/05/2005	07/21/2005	12/01/2005	04/28/2006	07/13/2006	10/04/2007	06/03/2008	07/28/2009	08/03/2010	08/25/2011	04/04/2012	04/04/2012	06/15/2012	12/14/2012	12/14/2012
			Field Sample ID	M216D4X	M216D4X	M216D5X	M216D5X	M216D6X	M216D6X	M216E4X	M216E5X	M217A4X	M217A1X	M217A2X	M217A3X	M217A5X	M217A6X	M217A7X	M217A8X	M217A9X	M217B1X	M217B2X	M217B3X	M217B3X	M217B4X	M217B6X	M217B6X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	35	-	-	66	-	19	170	320	1200	1000	1000	1100	1100	1200	820	1000	740	810	670	-	820	640	570	-
1,1,1-Trichloroethane	ug/L	N	30	9	-	-	9	-	17	170	370	16	20	17	17	17	19	9	15	11	22	10	-	11	17	6	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
1,1,2-Trichloroethane	ug/L	N	3	0.5U	-	-	0.5U	-	0.5U	0.7J	1	6	6	6	6	7	6	4J	5	4J	4J	3J	-	4J	3J	3J	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	3J	2U	2U	2U	-	2U	2U	2U	-
1,1-Dichloroethane	ug/L	N	50	42	-	-	69	-	32	160	300	330	310	320	320	290	320	260	290	280	230	210	-	190	190	230	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	-
1,2-Dibromoethane	ug/L	N	0	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
1,2-Dichloroethane	ug/L	N	2	0.5U	-	-	0.5U	-	0.5J	1	1	7	8	1U	7	1U	1U	4J	6	4J	1U	3J	-	3J	3J	3J	-
1,2-Dichloropropane	ug/L	N	1	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
1,4-Dichlorobenzene	ug/L	N	75	1U	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	22	-
2-Hexanone	ug/L	N	300	3U	-	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	-
4-Methyl-2-pentanone	ug/L	N	100	3U	-	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	-
Acetone	ug/L	N	6000	13J	-	-	15J	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6J	9J	6U	6J	-	6U	6U	4200	-
Benzene	ug/L	N	1	23	-	-	29	-	12	43	34	130	120	110	130	130	130	68	94	68	68	34	-	45	44	79	-
Bromodichloromethane	ug/L	N	1	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
Bromoform	ug/L	N	4	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
Carbon Dioxide	ug/L	N	NS	250000	-	-	260000	-	91000	180000	200000	150000	-	170000	180000	140000	190000	210000	230000	150000	210000	160000	-	160000	130000	270000	-
Carbon disulfide	ug/L	N	700	1U	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
Carbon Tetrachloride	ug/L	N	1	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
Chlorobenzene	ug/L	N	50	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	-
Chloroethane	ug/L	N	5	59	-	-	88	-	45	120	130	12	10	9	12	11	14	11	17	8	7	2J	-	3J	3J	4J	-
Chloroform	ug/L	N	70	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.8U	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	1	-	-	2	-	1	4	7	20	19	18	22	21	23	15	19	17	17	13	-	14	14	65	-
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
Cyclohexane	ug/L	N	100	2U	-	-	2U	-	2U	2J	4J	4J	3J	3J	4J	4J	4J	3J	4J	5J	7	5J	-	6	6	5J	-
Dibromochloromethane	ug/L	N	1	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	-
Ethane	ug/L	N	NS	-	11	9.70n	-	7.70n	-	-	-	18	-	16	14	17	200U	12	24	22	44	35	12	-	12	-	6.3
Ethene	ug/L	N	NS	-	7.4	5.10n	-	2.20n	-	-	-	6.9	-	7.3	6.5	6.3	17	5.3	9.5	7.4	8.8	7.4	4.3	-	3.8J	-	2.7
Ethylbenzene	ug/L	N	700	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	-
Isopropylbenzene	ug/L	N	700	1U	-	-	1U	-	1U	1J	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
Methane	ug/L	N	NS	-	18000	18000.00n	-	18000.00n	-	-	-	6800	5700	6000	7200	6300	9300	7700	9500	8200	5700	5700	5400	-	5700	-	4200
Methyl acetate	ug/L	N	7000	1U	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	1J	2J	2J	1J	1J	1J	0.9J	1J	1J	1J	1J	-	1J	1J	1J	-
Methylcyclohexane	ug/L	N	100	1U	-	-	1U	-	1U	1U	1J	1U	1U	1U	1U	1J	1U	1U	3J	1J	3J	1U	-	1J	1J	1J	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	-	2U	-	2U	0.9J	1	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	-
Styrene	ug/L	N	100	1U	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
Tetrachloroethene	ug/L	N	1	0.5U	-	-	0.5J	-	0.5U	1	3	0.8J	0.8U	0.8U	1J	1J	1J	1J	2J	2J	2J	1J	-	2J	2J	1J	-
Toluene	ug/L	N	600	0.5U	-	-	0.7J	-	0.5U	0.6J	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	-	0.7U	0.7U	0.7U	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	-
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	3	-	-	5	-	2	10	16	71	54	52	74	75	85	52	76	63	67	45	-	58	58	32	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	17	-	-	18	-	10	28	41	110	96	85	110	100	120	76	150	83	72	60	-	47	45	120	-
Xylene (total)	ug/L	N	1000	0.5U	-	-	0.5U	-	0.5U	0.6J	0.6J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217
			Sample Date	02/14/2013	02/14/2013	02/14/2013	04/16/2013	04/16/2013	04/16/2013	07/30/2013	09/19/2013	09/19/2013	12/17/2013	12/17/2013	12/17/2013	03/13/2014	03/13/2014	06/20/2014	06/20/2014	06/20/2014	08/13/2014	01/15/2015	01/15/2015	04/21/2015	04/21/2015	04/21/2015	07/06/2015
			Field Sample ID	D0214135	M217B7X	M217B7X	D0416135	M217B8X	M217B8X	M217B9X	M217C1	M217C1	D1217135	M217C2X	M217C2X	M217C3X	M217C3X	D0620145	M217C4X	M217C4X	M217C5X	M217C6X	M217C6X	M217C7X	M217C7X	M217C7X	M217C8X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	4J	4J	-	0.9J	1J	-	2J	1J	-	1J	2J	-	2J	-	0.5U	0.6J	-	2	7	-	-	10	-	-
1,1,1-Trichloroethane	ug/L	N	30	1J	1J	-	0.8J	1J	-	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	-	1U	1U	-	1U	1U	-	1U	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
1,1,2-Trichloroethane	ug/L	N	3	2J	2J	-	2J	2J	-	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	-	2U	2U	-	2U	2U	-	2U	2U	-	2U	-	2U	2U	-	2U	2U	-	-	2U	-	-
1,1-Dichloroethane	ug/L	N	50	190	210	-	190	170	-	58	10	-	5J	6	-	4J	-	3	3	-	3	6	-	-	6	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	-	1U	1U	-	1U	1U	-	1U	1U	-	1U	-	1U	1U	-	1U	1UJ	-	-	1U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	-	2U	2U	-	2U	2U	-	2U	2U	-	2U	-	2U	2U	-	2U	2U	-	-	2U	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	-	1U	1U	-	1U	1U	-	1U	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	-	1U	1U	-	1U	1U	-	1U	1U	-	1U	-	1U	1U	-	1U	1U	-	-	1U	-	-
1,2-Dichloroethane	ug/L	N	2	4J	5J	-	1UJ	1UJ	-	1U	3J	-	2J	2J	-	1J	-	2	2	-	2	2	-	-	2	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	-	1U	1U	-	1U	1U	-	1U	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	-	1U	1U	-	1U	1U	-	1U	1U	-	1U	-	1U	1U	-	1U	1U	-	-	1U	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	-	1U	1U	-	1U	1U	-	1U	1U	-	1U	-	1U	1U	-	1U	1U	-	-	1U	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	43	52	-	88J	70J	-	36	46	-	5J	4J	-	3U	-	3U	3U	-	3U	3U	-	-	3U	-	-
2-Hexanone	ug/L	N	300	3U	3U	-	3UJ	3UJ	-	3U	3U	-	3U	3U	-	3U	-	3U	3U	-	3U	3U	-	-	3U	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	-	3UJ	3UJ	-	3U	3U	-	3U	3U	-	3U	-	3U	3U	-	3U	3U	-	-	3U	-	-
Acetone	ug/L	N	6000	4900	6200	-	8200	9000	-	4100	3700	-	170	160	-	6U	-	6U	6U	-	6U	10J	-	-	6U	-	-
Benzene	ug/L	N	1	62	67	-	68	61	-	46	56	-	51	46	-	32	-	39	43	-	43	33	-	-	29	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	-	1U	1U	-	1U	1U	-	1U	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
Bromoform	ug/L	N	4	1U	1U	-	1U	1U	-	1U	1U	-	1U	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	-	1UJ	1UJ	-	1U	1U	-	1U	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
Carbon Dioxide	ug/L	N	NS	-	280000	-	-	320000	-	260000	230000	-	-	210000	-	280000	-	-	200000	-	300000	200000	-	-	290000	-	-
Carbon disulfide	ug/L	N	700	1U	1U	-	1U	1J	-	1U	1U	-	1U	1U	-	1U	-	1U	1U	-	1U	1U	-	-	1U	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	-	1UJ	1UJ	-	1U	1U	-	1U	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
Chloroethane	ug/L	N	5	9	9	-	21	21	-	61	110	-	74	67	-	57	-	80	87	-	93	56	-	-	54	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	-	1U	1U	-	1U	1U	-	1U	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	1J	1J	-	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	-	0.5U	0.5U	-	0.6J	1	-	-	1	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	1U	1U	-	1U	1U	-	1U	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
Cyclohexane	ug/L	N	100	6	6	-	5J	4J	-	2J	4J	-	2U	2U	-	2UJ	-	2U	2U	-	2U	2U	-	-	2U	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	-	1U	1U	-	1U	1U	-	1U	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	-	2U	2U	-	2U	2U	-	2U	2U	-	2U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
Ethane	ug/L	N	NS	-	-	6	-	-	10	4.7J	-	3.2	-	-	19	-	26	-	-	45	100	-	68	74.00n	-	74	63.00n
Ethene	ug/L	N	NS	-	-	230	-	-	310	270	-	64	-	-	39	-	20	-	-	4.4	23	-	5.4	4.50n	-	4.5	5.30n
Ethylbenzene	ug/L	N	700	2J	1J	-	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	-	1U	1U	-	1U	1U	-	1U	1U	-	1U	-	1U	1U	-	1U	1U	-	-	1U	-	-
Methane	ug/L	N	NS	-	-	5300	-	-	16000	25000	-	16000	-	-	17000	-	14000	-	-	12000	24000	-	15000	14000.00n	-	14000	13000.00n
Methyl acetate	ug/L	N	7000	1U	1U	-	1U	1U	-	1U	1U	-	1U	1U	-	1U	-	1U	1U	-	1U	1U	-	-	1U	-	-
Methyl-t-butyl ether	ug/L	N	70	0.9J	0.9J	-	1J	0.9J	-	0.7J	0.9J	-	0.8J	0.8J	-	0.5J	-	0.7J	0.8J	-	0.8J	0.6J	-	-	0.6J	-	-
Methylcyclohexane	ug/L	N	100	1J	1J	-	1J	1J	-	1U	1U	-	1U	1U	-	1U	-	1U	1U	-	1U	1U	-	-	1U	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	-	2U	2U	-	2U	2U	-	2U	2U	-	2U	-	2U	2U	-	2U	2U	-	-	2U	-	-
Styrene	ug/L	N	100	1U	1U	-	1U	1U	-	1U	1U	-	1U	1U	-	1U	-	1U	1U	-	1U	1U	-	-	1U	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
Toluene	ug/L	N	600	0.7U	0.7U	-	0.7U	0.7U	-	0.7U	0.7U	-	0.7U	0.7U	-	0.7J	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	1U	1U	-	1U	1U	-	1U	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5UJ	-	-	0.5U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1J	-	1U	1U	-	1U	1U	-	1U	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	-	2U	2U	-	2U	2U	-	2U	2U	-	2U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	7	7	-	2J	2J	-	1U	2J	-	3J	3J	-	5J	-	2	2	-	5	11	-	-	10	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
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Historical Groundwater VOC Concentration Data
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Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-217	MW-217	MW-217	MW-217	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219
			Sample Date	07/06/2015	10/09/2015	10/09/2015	11/07/2017	11/23/2005	12/16/2005	02/22/2006	05/09/2006	07/11/2006	09/25/2007	06/05/2008	07/28/2009	07/29/2010	08/23/2011	04/03/2012	04/03/2012	06/13/2012	12/12/2012	12/12/2012	02/13/2013	02/13/2013	04/15/2013	04/15/2013	06/03/2013
			Field Sample ID	M217C8X	M217C9X	M217C9X	M217D7X	M219A1	M219A2X	M219A3X	M219A4X	M219A5X	M219A6X	M219A7X	M219A8X	M219A9X	M219B1X	M219B2X	M219B2X	M219B3X	M219B5X	M219B5X	M219B6X	M219B6X	M219B7X	M219B7X	M219B8X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	7	-	3	4	59	44	44	41	23	17	29	56	15	9	-	5J	0.8U	0.8U	-	6	-	6	-	4J
1,1,1-Trichloroethane	ug/L	N	30	0.5U	-	0.5U	0.5U	20	14	26	29	25	7	13	13	2J	1J	-	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	-	2U	-	2U	-	2U
1,1-Dichloroethane	ug/L	N	50	6	-	2	2	170	160	240	200	160	200	290	57	25	16	-	11	1U	4J	-	20	-	16	-	9
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	-	2U	-	2U	-	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
1,2-Dichloroethane	ug/L	N	2	2	-	2	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	-	3U	-	3U	-	3U
2-Hexanone	ug/L	N	300	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	-	3U	-	3U	-	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	-	3U	-	3U	-	3U
Acetone	ug/L	N	6000	6U	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	6U	6U	6U	-	6U	-	6U	-	6U
Benzene	ug/L	N	1	33	-	46	29	2J	2J	2J	1J	0.9J	0.5J	0.6J	1J	0.5U	0.5U	-	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U
Bromodichloromethane	ug/L	N	1	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
Bromoform	ug/L	N	4	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
Carbon Dioxide	ug/L	N	NS	300000	-	250000	120000	-	68000	85000	91000	67000	65000	78000	66000	63000	42000	-	33000	4000U	18000	-	65000	-	62000	-	47000
Carbon disulfide	ug/L	N	700	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
Chlorobenzene	ug/L	N	50	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U
Chloroethane	ug/L	N	5	59	-	90	36	57	48	91	73	27	21	14	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
Chloroform	ug/L	N	70	0.5U	-	0.5U	0.5U	3J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
cis-1,2-Dichloroethene	ug/L	N	70	1	-	0.7J	2	1J	1J	1J	1J	1J	2J	2J	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
Cyclohexane	ug/L	N	100	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	-	2U	-	2U	-	2U
Dibromochloromethane	ug/L	N	1	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1UJ	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	-	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	-	2U	-	2U	-	2U
Ethane	ug/L	N	NS	-	92.00n	-	-	-	1.1J	1.2J	2.7J	1.6J	1.4J	1.3J	1.0U	1.0U	1.0U	2.7	-	1.0U	-	3.7	-	1	-	1.1	-
Ethene	ug/L	N	NS	-	9.50n	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	0.12	-	1.0U	-	0.2	-	0.072	-	0.081	-
Ethylbenzene	ug/L	N	700	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U
Isopropylbenzene	ug/L	N	700	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
Methane	ug/L	N	NS	-	16000.00n	-	-	-	140	420	750	470	420	220	92	180	28	750	-	6.4J	-	680	-	240	-	250	-
Methyl acetate	ug/L	N	7000	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
Methyl-t-butyl ether	ug/L	N	70	0.7J	-	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5J	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U
Methylcyclohexane	ug/L	N	100	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	-	2U	-	2U	-	2U
Styrene	ug/L	N	100	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
Tetrachloroethene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U
Toluene	ug/L	N	600	0.5U	-	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	-	0.7U	0.7U	0.7U	-	0.7U	-	0.7U	-	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	-	0.5U	0.5J	7	5J	4J	5J	3J	2J	3J	4J	2J	1J	-	1U	1U	1U	-	1J	-	1J	-	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	-	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	-	2U	-	2U	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	9	-	5	9	2J	1J	2J	2J	2J	3J	3J	1J	1U	1U	-	1U	1U	1U	-	1U	-	1U	-	1U
Xylene (total)	ug/L	N	1000	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R	MW-220	MW-220	MW-220	MW-220
			Sample Date	08/06/2013	09/18/2013	09/18/2013	09/18/2013	09/18/2013	04/20/2015	04/22/2015	04/22/2015	10/28/2014	10/28/2014	10/28/2014	01/13/2015	01/13/2015	01/13/2015	04/20/2015	07/06/2015	07/06/2015	10/08/2015	10/08/2015	11/08/2017	11/23/2005	12/16/2005	02/16/2006	04/26/2006
			Field Sample ID	M219B9X	D0918135	D0918135	M219C1	M219C1	D0420155	M219RA5	M219RA5	M219RA1X	M219RA1X	M219RA1X	M219RA3X	M219RA3X	M219RA3X	M219RA4X	M219RA6X	M219RA6X	M219RA7X	M219RA7X	M219RB6X	M220A1	M220A2X	M220A3X	M220A4X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	2J	2J	-	2J	-	5	-	-	-	10	-	-	10	-	6	-	11	-	6	1	120	99	130	140
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	-	0.8U	-	1	-	-	-	3	-	-	2	-	1	-	2	-	0.8J	0.5U	12	7	19	24
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	-	1U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	-	0.8U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	-	2U	-	2U	-	-	-	2U	-	-	2U	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	4J	3J	-	3J	-	87	-	-	-	160	-	-	140	-	92	-	170	-	100	20	180	150	230	220
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	-	1U	-	1U	-	-	-	1U	-	-	1U	-	1U	-	1U	-	1U	1UJ	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	-	2U	-	2U	-	-	-	2U	-	-	2U	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	-	1U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	-	1U	-	1U	-	-	-	1U	-	-	1U	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	-	1U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.6J	-	0.5U	0.5U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	-	1U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	-	1U	-	1U	-	-	-	1U	-	-	1U	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	-	1U	-	1U	-	-	-	1U	-	-	1U	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	-	3U	-	3U	-	-	-	3U	-	-	3U	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	3U	-	3U	-	3U	-	-	-	3U	-	-	3U	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	-	3U	-	3U	-	-	-	3U	-	-	3U	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	-	6U	-	6U	-	-	-	6U	-	-	6U	-	6U	-	6U	-	6U	6U	6U	6U	6U	6U
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	-	0.5J	-	-	-	0.8J	-	-	0.7J	-	0.5J	-	1	-	0.8J	0.5U	7	6	5J	5
Bromodichloromethane	ug/L	N	1	1U	1U	-	1U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	-	1U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	-	1U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	54000	56000	-	50000	-	-	-	-	-	86000	-	-	90000	-	49000	-	100000	-	55000	130000	-	110000	110000	120000
Carbon disulfide	ug/L	N	700	1UJ	1U	-	1U	-	1U	-	-	-	1U	-	-	1U	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	-	1U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	-	0.8U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	-	1U	-	23	-	-	-	15	-	-	10	-	24	-	62	-	6	0.5U	75	65	89	82
Chloroform	ug/L	N	70	0.8U	0.8U	-	0.8U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1J	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	-	1U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	-	0.8U	-	0.9J	-	-	-	1	-	-	1	-	0.9J	-	2	-	0.9J	0.5U	6	5	6	6
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	1U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	-	2U	-	2U	-	-	-	2U	-	-	2U	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	-	1U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	-	2U	-	0.5U	-	-	-	0.5U	-	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	2U	2U	2U	2U
Ethane	ug/L	N	NS	1.1J	-	0.69	-	0.86	-	16.00n	16	5.80	-	5.8	12.00	-	12	-	8.40n	-	0.35n	-	-	-	6.0	7.4	9.1
Ethene	ug/L	N	NS	1.0U	-	0.042	-	0.066	-	0.71n	0.71	0.34	-	0.34	0.38	-	0.38	-	0.49n	-	0.07Jn	-	-	-	4.2J	4.4J	4.8J
Ethylbenzene	ug/L	N	700	0.8U	0.8U	-	0.8U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	-	1U	-	1U	-	-	-	1U	-	-	1U	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	270	-	260	-	280	-	1400.00n	1400	490.00	-	490	1100.00	-	1100	-	700.00n	-	25.00n	-	-	-	4000	4700	4400
Methyl acetate	ug/L	N	7000	1U	1U	-	1U	-	1U	-	-	-	1U	-	-	1U	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	-	0.5U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	-	1U	-	1U	-	-	-	1U	-	-	1U	-	1U	-	1U	-	1U	1U	1U	2J	1J	1J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	-	2U	-	2U	-	-	-	2U	-	-	2U	-	2U	-	2U	-	2U	0.5U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	-	1U	-	1U	-	-	-	1U	-	-	1U	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	-	0.8U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	2J	1J	2J	3J
Toluene	ug/L	N	600	0.7U	0.7U	-	0.7U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1J	0.9J	2J	27
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	-	0.8U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	1U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	-	1U	-	0.8J	-	-	-	2	-	-	2	-	0.8J	-	1	-	0.9J	0.5U	12	10	11	12
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	-	2U	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	-	1U	-	4	-	-	-	3	-	-	5	-	4	-	9	-	0.6J	0.5U	18	14	21	20
Xylene (total)	ug/L	N	1000	0.8U	0.8U	-	0.8U	-	0.5U	-	-	-	1J	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220
			Sample Date	07/11/2006	04/04/2012	04/04/2012	07/09/2012	06/04/2013	06/04/2013	06/23/2014	06/23/2014	08/28/2014	08/28/2014	10/28/2014	10/28/2014	10/28/2014	01/16/2015	01/16/2015	01/16/2015	04/22/2015	04/22/2015	04/22/2015	07/10/2015	07/10/2015	10/13/2015	10/13/2015	11/10/2017
			Field Sample ID	M220A5X	M220A6X	M220A6X	M220A7	M220A9X	M220A9X	M220B1X	M220B1X	M220B2X	M220B2X	M220B3X	M220B3X	M220B3X	M220B5X	M220B5X	M220B5X	M220B6X	M220B6X	M220B6X	M220B7X	M220B7X	M220B8X	M220B8X	M220C5X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	120	-	290	200	300	-	35	-	-	38J	-	26	-	-	2	-	-	1J	-	-	2	-	0.6J	0.5U
1,1,1-Trichloroethane	ug/L	N	30	12	-	300	160	310	-	5	-	-	2J	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	-	1U	1U	1U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	-	0.9J	0.8U	1J	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	2U	2U	2U	-	2U	-	-	2UJ	-	2U	-	-	2U	-	-	2UJ	-	-	2U	-	2U	2U
1,1-Dichloroethane	ug/L	N	50	190	-	290	140	260	-	74	-	-	140J	-	74	-	-	1	-	-	0.9J	-	-	0.6J	-	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	1U	1U	1U	-	1U	-	-	1UJ	-	1U	-	-	1U	-	-	1UJ	-	-	1U	-	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	2U	2U	2U	-	2U	-	-	2UJ	-	2U	-	-	2U	-	-	2UJ	-	-	2U	-	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	-	1U	1U	1U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	1U	1U	1U	-	1U	-	-	1UJ	-	1U	-	-	1U	-	-	1UJ	-	-	1U	-	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	-	1J	1U	1J	-	0.5U	-	-	0.5UJ	-	0.5J	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	1U	-	1U	1U	1U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
1,3-Dichlorobenzene	ug/L	N	600	1U	-	1U	1U	1U	-	1U	-	-	1UJ	-	1U	-	-	1U	-	-	1UJ	-	-	1U	-	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	-	1U	1U	1U	-	1U	-	-	1UJ	-	1U	-	-	1U	-	-	1UJ	-	-	1U	-	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	3U	3U	3U	-	66	-	-	76J	-	130	-	-	18	-	-	4J	-	-	11	-	3U	3U
2-Hexanone	ug/L	N	300	3U	-	3U	3U	3U	-	3U	-	-	4J	-	3U	-	-	3U	-	-	3UJ	-	-	3U	-	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	-	3U	3U	3U	-	3U	-	-	4J	-	3U	-	-	3U	-	-	3UJ	-	-	3U	-	3U	3U
Acetone	ug/L	N	6000	6U	-	6U	6U	6U	-	120	-	-	260J	-	250	-	-	89	-	-	23J	-	-	77	-	9J	6U
Benzene	ug/L	N	1	7	-	6	4J	2J	-	0.8J	-	-	2J	-	2	-	-	2	-	-	4J	-	-	3	-	3	2
Bromodichloromethane	ug/L	N	1	1U	-	1U	1U	1U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
Bromoform	ug/L	N	4	1U	-	1U	1U	1U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5UJ	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	-	1U	1U	1U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
Carbon Dioxide	ug/L	N	NS	120000	-	110000	-	150000	-	210000	-	-	430000	-	410000	-	-	230000	-	-	340000J	-	-	340000	-	330000	130000
Carbon disulfide	ug/L	N	700	1U	-	1U	1U	1U	-	1U	-	-	1UJ	-	1U	-	-	1U	-	-	1UJ	-	-	1U	-	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	-	1U	1U	1U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.8U	-	0.8U	0.8U	0.8U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
Chloroethane	ug/L	N	5	79	-	84	46	70	-	23	-	-	91J	-	45	-	-	150	-	-	160J	-	-	130	-	76	37
Chloroform	ug/L	N	70	0.8U	-	0.8U	0.8U	0.8U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	-	1U	1U	1U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	5J	-	13	6	10	-	2	-	-	2J	-	2	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	1U	-	1U	1U	1U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	-	2U	2U	2U	-	2U	-	-	2UJ	-	2U	-	-	2U	-	-	2UJ	-	-	2U	-	2U	2U
Dibromochloromethane	ug/L	N	1	1U	-	1U	1U	1U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5UJ	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	-	2U	2U	2U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
Ethane	ug/L	N	NS	10	10	-	-	-	10	-	2.1	3.00	-	1.50	-	1.5	0.31	-	0.31	0.58n	-	0.58	0.06Jn	-	0.18n	-	-
Ethene	ug/L	N	NS	5.1	4.7	-	-	-	3.8	-	3.9	11.00	-	1.60	-	1.6	1.10	-	1.1	0.94n	-	0.94	0.18n	-	0.04Jn	-	-
Ethylbenzene	ug/L	N	700	0.8U	-	0.8U	0.8U	0.8U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	1U	-	1U	1U	1U	-	1U	-	-	1UJ	-	1U	-	-	1U	-	-	1UJ	-	-	1U	-	1U	1U
Methane	ug/L	N	NS	5900	6300	-	-	-	4300	-	7200	6000.00	-	10000.00	-	10000	13000.00	-	13000	14000.00n	-	1400	12000.00n	-	11000.00n	-	-
Methyl acetate	ug/L	N	7000	1U	-	1U	1U	1U	-	1U	-	-	1UJ	-	1U	-	-	1U	-	-	1UJ	-	-	1U	-	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	0.5U	0.5U	0.5U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1J	-	3J	1J	2J	-	1U	-	-	1UJ	-	1U	-	-	1U	-	-	1UJ	-	-	1U	-	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	2U	2U	2U	-	2U	-	-	2UJ	-	2U	-	-	2U	-	-	2UJ	-	-	2U	-	2U	0.5U
Styrene	ug/L	N	100	1U	-	1U	1U	1U	-	1U	-	-	1UJ	-	1U	-	-	1U	-	-	1UJ	-	-	1U	-	1U	1U
Tetrachloroethene	ug/L	N	1	2J	-	4J	2J	4J	-	0.5U	-	-	0.7J	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
Toluene	ug/L	N	600	1J	-	2J	0.7U	0.8J	-	3	-	-	5J	-	10	-	-	3	-	-	3J	-	-	3	-	2	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	-	0.8U	0.8U	0.8U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	-	1U	1U	1U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	11	-	16	9	17	-	2	-	-	2J	-	2	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	-	2U	2U	2U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	18	-	23	13	20	-	4	-	-	5J	-	3	-	-	1	-	-	0.9J	-	-	1	-	0.7J	0.5U
Xylene (total)	ug/L	N	1000	0.8U	-	0.8U	0.8U	0.8U	-	0.5U	-	-	0.5UJ	-	0.5U	-	-	0.6J	-	-	0.5J	-	-	0.5U	-	0.5U	0.5U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
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Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-220	MW-220	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222
			Sample Date	02/19/2018	02/19/2018	01/09/2006	01/24/2006	05/18/2006	08/24/2006	06/03/2008	07/29/2009	09/15/2011	06/21/2012	08/30/2013	08/14/2014	04/26/2016	06/20/2017	01/09/2006	01/24/2006	05/18/2006	08/24/2006	06/03/2008	07/29/2009	08/12/2010	09/15/2011	06/21/2012	08/29/2013
			Field Sample ID	D02191815	M220C6X	M221A1	M221A2X	M221A3X	M221A4X	M221A6X	M221A7X	M221A8X	M221B1X	M221B2X	M221B3X	M221B4X	M221B5X	M222A1	M222A2X	M222A3X	M222A4X	M222A6X	M222A7X	M222A8X	M222A9X	M222B2X	M222B3X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.8U	0.8U	4J	3J	3J	2J	2J	3J	3J	2	2	2	17	15	14	15	7	11	12	13	14	10J
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	2U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.8U	0.8U	3J	1J	2J	0.8J	0.8U	2J	0.8J	0.5J	0.7J	0.7J	2J	2J	2J	2J	1J	2J	2J	2J	2J	2U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	4U	2U	2U	4U	2U	2U	4U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2UJ	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	4U	2U	2U	4U	2U	2U	4U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3UJ	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	6U	3U	6U	3U	3U	6U	3U	3U	6U
2-Hexanone	ug/L	N	300	3UJ	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	6U	3U	6U	3U	3U	6U	3U	3U	6U
4-Methyl-2-pentanone	ug/L	N	100	3UJ	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	6U	3U	6U	3U	3U	6U	3U	3U	6U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	12U	6U	12U	6U	6U	12U	6U	6U	12U
Benzene	ug/L	N	1	1J	0.7J	0.5U	0.5U	0.5U	0.6J	0.5U	0.5U	0.5U	0.7J	0.5J	0.5J	0.5J	0.5J	4J	3J	2J	2J	0.9J	2J	2J	2J	2J	2J
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
Bromoform	ug/L	N	4	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
Carbon Dioxide	ug/L	N	NS	-	95000	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1J	2U	1U	2U	1U	1U	2U	1U	1U	2U
Carbon disulfide	ug/L	N	700	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	2U
Chloroethane	ug/L	N	5	15	12	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
Chloroform	ug/L	N	70	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1J	2U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	2U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	190	110	1700	880	1100	640	470	820	770	660	710	760	1600	1500	1300	1200	1100	1400	1700	1700	1900	1700
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	9	17	16	16	2U	8	4J	6	12	5J
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	2U	4U	2U	4U	2U	2U	4U	2U	2U	4U
Ethane	ug/L	N	NS	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	2.3J	1.1J	1.0J	1.0U	1.3J	1.4J	1.2J	1.2J	1.8J
Ethene	ug/L	N	NS	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	3.7J	1.1J	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	2U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
Methane	ug/L	N	NS	-	-	-	13	8.0	8.3	8.6	25	62	14J	24	11	12	3.0U	-	51	33	25	6.4	29	25	22	38	32
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.6J	1J	2J	3J	2J	2J	4J	3J	3J	2	1	2	0.9J	1U	1J	1U	0.5J	0.9J	1U	0.8J	0.9J	1U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	3J	8J	5J	4J	2J	1U	2U	1J	3J	2U
Methylene chloride (Dichloromethane)	ug/L	N	3	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	4U	2U	2U	4U	2U	2U	4U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	2U
Toluene	ug/L	N	600	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U	1U	0.7U	1U	0.7U	0.7U	1U	0.7U	0.7U	1U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	1J	1J	8	6	5	5J	5J	7	7	11	5	7	11	16	9	10	6	9	10J	10	14	8J
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	41	35	320	200	230	140	77	160	290	210	210J	190	1900	1800	1300	1200	480	830	1000	1100	840	770
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	2U	4U	2U	4U	2U	2U	4U	2U	2U	4U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	4J	3J	9	9	6	12	32	34	25	21	20	29	37	43	44	31	31	35	41	43	53	29
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	2U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-222	MW-222	MW-222	MW-224	MW-224	MW-224	MW-224	MW-224	MW-224	MW-224	MW-224	MW-225	MW-225	MW-225	MW-225	MW-225	MW-225	MW-225	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226
			Sample Date	08/14/2014	04/26/2016	06/20/2017	11/23/2005	12/08/2005	03/02/2006	05/22/2006	08/22/2006	10/04/2007	06/10/2008	09/15/2009	11/23/2005	12/08/2005	03/02/2006	05/18/2006	08/22/2006	06/10/2008	09/15/2009	11/23/2005	12/08/2005	03/02/2006	05/18/2006	08/22/2006	06/10/2008
			Field Sample ID	M222B4X	M222B5X	M222B6X	M224A1	M224A2X	M224A3X	M224A4X	M224A5X	M224A6X	M224A7X	M224A8X	M225A1	M225A2X	M225A3X	M225A4X	M225A5X	M225A7X	M225A8X	M226A1	M226A2X	M226A3X	M226A4X	M226A5X	M226A7X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	15	8	9	0.8U	0.8U	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	1U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	1	1J	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	4U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	4U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	2U	2U	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	2U	2U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	2U	2U	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	6U	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	6U	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	6U	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	12U	12U	14J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Benzene	ug/L	N	1	3	2J	2J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	0.5U	1U	1U	7	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	1U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.5U	1U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.5U	1U	1U	28	7	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	2100	1600	1300	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2J	5	5J	2J	2J	0.8U	5J	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	7	4U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	1U	1U	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	1U	1U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	2.0J	1.9J	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U
Ethene	ug/L	N	NS	1.0U	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U
Ethylbenzene	ug/L	N	700	0.5U	1U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	26	29	4.4J	-	7.7	19	16	30	52	18	25	-	2.0U	2.0U	2.0U	2.0U	2.0U	5.0J	-	18	6.3	8.0	7.6	11
Methyl acetate	ug/L	N	7000	1U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.7J	1U	1U	6	16	21	19	19	19	19	17	0.8J	0.7J	3J	6	6	55	22	300	370	270	230	140	47
Methylcyclohexane	ug/L	N	100	1U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	4U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	1U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	1U	1U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	14	8	10	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1100	760J	670	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	18	7	6	2J	9	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	1U	1U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	37	35	21	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1J	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.5U	1U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-227R	MW-227R	MW-227R	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-234R	MW-234R	MW-234R
			Sample Date	09/15/2009	08/12/2010	09/15/2011	06/21/2012	08/30/2013	08/14/2014	11/25/2015	05/19/2016	06/14/2017	05/23/2006	07/07/2006	06/05/2008	09/02/2009	07/29/2010	08/23/2011	06/13/2012	08/06/2013	08/12/2014	12/03/2015	04/28/2016	06/15/2017	07/26/2013	07/03/2014	08/01/2014
			Field Sample ID	M226A8X	M226A9X	M226B1X	M226B3X	M226B4X	M226B5X	M227RA1	M227RA2X	M227RA3X	M230A1X	M230A2X	M230A3X	M230A4X	M230A5X	M230A6X	M230A7X	M230A8X	M230A9X	M230B1X	M230B2X	M230B3X	M234RA1X	M234RA2X	M234RA3X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	-	450	510	520	30	120	92	300	14	1400	1700	1400	650	0.8U	0.5U	0.5UJ
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	-	1400	1500	1500	37	180	150	610	21	5300	5000	5300	2200	0.8U	0.5U	0.5UJ
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	-	2J	2J	2U	0.8U	0.8U	0.8U	1J	0.8U	3J	5U	5U	1	0.8U	0.5U	0.5UJ
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	4U	2U	2U	2U	2U	2U	10U	20U	20U	2U	2U	2U	2UJ
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	0.5U	-	-	-	120	120	120	11	33	39	130	7	890	1000	920	590	1U	0.5U	0.5UJ
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1UJ
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	4U	2U	2U	2U	2U	2U	10U	20U	20U	2U	2U	2U	2UJ
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	0.5U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1UJ
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	0.5U	-	-	-	1J	1J	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.7J	1U	0.5U	0.5UJ
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1UJ
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1UJ
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	6U	3U	3U	3U	3U	3U	15U	30U	30U	7J	3J	3J	3UJ
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	6U	3U	3U	3U	3U	3U	15U	30U	30U	3U	3U	3U	3UJ
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	6U	3U	3U	3U	3U	3U	15U	30U	30U	3U	3U	3U	3UJ
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	-	-	-	6U	6U	12U	6U	6U	17J	6U	6U	30U	60U	60U	6U	7J	6J	6UJ
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	82	59	2	1J	1J	1J	0.5U	0.5U	0.5U	0.6J	0.5U	3U	5U	5U	0.6J	36	43	45J
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	0.5U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	0.5U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
Carbon Dioxide	ug/L	N	NS	1U	1U	1U	1U	1U	1U	-	-	-	110000	100000	150000	110000	170000	95000	92000	71000	190000	10U	10U	1U	1U	1U	1UJ
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1UJ	5U	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	-	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	3U	5U	5U	0.5U	0.8U	0.5U	0.5UJ
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	0.5U	-	-	-	2J	2J	2J	1U	2J	1U	1J	1U	18	31	28J	8	1U	0.5U	0.5UJ
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	-	0.9J	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	3U	5U	5U	0.5J	0.8U	0.5U	0.5UJ
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	0.5U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	6J	0.5U	1U	0.5U	0.5UJ
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	-	5J	4J	3J	3J	3J	2J	2J	0.8U	7	23	26	9	0.8U	0.5U	0.5UJ
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	4U	2U	2U	2U	2U	2U	10U	20U	20U	2U	28	53	52J
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	0.5U	-	-	-	2U	2U	4U	2U	2U	2U	2U	2U	3U	5U	5U	0.5U	2U	0.5U	0.5UJ
Ethane	ug/L	N	NS	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	2.1J	1.0U	1.0U	7.0U	1.0U	1.0U	1.0U	1.0U	4.3J	5.7	4.6J	2.4J	-	-	-
Ethene	ug/L	N	NS	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	1.0U	1.0U	1.0U	1.7J	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8J	3U	0.5U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	3U	5U	5U	0.5U	50	30	26J
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	12	28	28J
Methane	ug/L	N	NS	19	11J	5.0J	5.7J	3.0U	3.0U	-	-	-	160	86	120	340	120	170	190	470	470	680	590	300	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1UJ
Methyl-t-butyl ether	ug/L	N	70	51	8	17	11	2J	2	-	-	-	45	52	18	4J	4J	2J	3J	0.5U	3U	5U	5U	0.7J	0.5U	0.5U	0.5UJ
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	30	73	76J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	-	-	-	4J	4J	4J	2U	2U	2U	2U	2U	10U	20U	20U	2U	2U	2U	2UJ
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1UJ
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	-	6	8	7J	0.8U	2J	2J	4J	0.8U	19	26	21	5	0.8U	0.5U	0.5UJ
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	3U	0.5U	0.7U	0.7U	1U	0.7U	0.7U	0.7U	0.7U	0.7U	3U	5U	5U	0.5U	20	49	46J
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	-	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	3U	5U	5U	0.5U	0.8U	0.5U	0.5UJ
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
Trichloroethene (Trichloroethylene)	ug/L	N	1	1J	1U	1U	1U	1U	0.5U	-	-	-	120	100	75	50	81	45	53	5J	130	150	110	30	1U	0.5U	0.5UJ
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	0.5U	-	-	-	2U	2U	4U	2U	2U	2U	2U	2U	3U	5U	5U	0.5U	2U	0.5U	0.5UJ
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	-	-	-	2J	2J	2J	2J	2J	2J	2J	1U	13	15	14	3	1U	0.5U	0.5UJ
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3U	0.5U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	3U	5U	5U	0.5U	200	370	390J
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241
			Sample Date	08/29/2014	01/16/2015	09/18/2015	11/19/2015	12/15/2015	01/13/2016	04/14/2016	07/25/2016	12/06/2016	01/23/2017	03/22/2017	04/28/2017	05/17/2017	12/07/2006	05/16/2007	12/06/2007	08/15/2008	10/30/2008	06/11/2009	11/19/2009	04/29/2010	09/21/2010	08/04/2011	11/22/2011
			Field Sample ID	M234RA4X	M234RA5X	M234RA6	M234RA7	M234RA8X	M234RA9	M234RB1	M234RB2	M234RB3	M234RB4	M234RB6X	M234RB7	M234RB8X	M241A1X	M241A2X	M241A3X	M241A4X	M241A5X	M241A6X	M241A7X	M241A8X	M241A9X	M241B1X	M241B2X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	4J	3U	3J	3UJ	3U	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3UJ	3UJ	3U	3UJ	3U	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3UJ	3UJ	3U	3U	3U	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	7J	6U	7J	6U	6U	6U	6J	6U	-	6U	-	6U	7J	6U	6J	6U	6U	6U	6U	6U	6U	6U
Benzene	ug/L	N	1	57	47	28	53	54	50	64	89	140	140	110	110	120	0.5U	0.5U	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	53	44	10	32	35	35	28	24	40	33	-	30	-	4J	4J	5	6	2U	4J	6	4J	6	6	2J
Dibromochloromethane	ug/L	N	1	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	-	0.5UJ	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	22	24	5	11	13	12	12	12	14	13	-	16	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	26	26	9	15	19	16	16	16	14	19	-	23	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1UJ	1U	1U	1UJ	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	10	9	14	12	11	10	10	9	11	9	7
Methylcyclohexane	ug/L	N	100	66	58	13	34	45	37	31	32	52	41	-	36	-	1J	1U	1J	1J	1U	1U	1J	1J	1J	2J	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	56	55	20	42	61	38	80	110	72	74	-	75	-	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	330	320	84	160	170	130	150	120	120	110	-	110	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	2200	-	-	-	2800J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254
			Sample Date	03/27/2012	08/09/2012	04/04/2013	09/26/2013	06/19/2014	11/12/2014	06/30/2015	02/02/2016	02/18/2016	08/16/2016	02/15/2017	08/22/2017	03/01/2018	02/27/2007	08/21/2007	02/20/2008	09/30/2008	03/06/2009	10/07/2009	03/18/2010	08/19/2010	04/28/2011	05/10/2012	05/31/2013
			Field Sample ID	M241B3X	M241B4X	M241B5X	M241B6X	M241B7X	M241B8X	M241B9X	M241HS	M241C1X	M241C2X	M241C3X	M241C4X	M241C5X	M254A1X	M254A2X	M254A3X	M254A4X	M254A5X	M254A6X	M254A7X	M254A8X	M254A9X	M254B1X	M254B2X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	8J	3U	8J	7J	4J	6J	17	10J	3U	3U	6J
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6UJ	6U	6U	6U	45	26	49	33	30	18J	51	54	34	39	19J
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	17	46	36	68	0.5U	7	9	4J	17	4J	3J
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	6	5	5	3J	6	6	3J	6	2J	3J	4J	3J	4J	100	160	120	130	2U	63	65	57	80	33	36
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5J	7	3J	3J	0.8U	0.9J	1J	0.8U	1J	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	52	39	48	50	1U	39	35	32	34	35	39
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	9	8	5J	5	4	7	5	5	4	5	4	4	4	2J	2J	3J	2J	0.5U	1J	1J	1J	2J	0.8J	1J
Methylcyclohexane	ug/L	N	100	1J	1J	1J	1J	1U	1U	1U	1J	1U	1U	1J	1U	1U	170	150	170	150	1U	120	120	110	150	130	140
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	7	8	7	11	0.7U	4J	3J	3J	4J	3J	3J
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	16	12	14	16	0.8U	9	9	8	9	6	6
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259
			Sample Date	09/25/2014	12/17/2015	05/27/2016	09/20/2016	12/15/2016	06/01/2017	03/01/2007	05/22/2007	12/05/2007	06/26/2008	10/24/2008	07/14/2009	11/10/2009	06/02/2010	09/14/2010	06/14/2011	11/17/2011	04/26/2012	08/09/2012	04/19/2013	08/19/2013	09/24/2013	03/27/2014	08/18/2014
			Field Sample ID	M254B3X	M254B4X	M254B5X	M254B6X	M254B7X	M254B8X	M259A1X	M259A2X	M259A3X	M259A4X	M259A5X	M259A6X	M259A7X	M259A8X-100602	M259A9X	M259B1X	M259B2X	M259B3X	M259B4X	M259B5X	M259B6	M259B7X	M259B8X	M259B9X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U	2U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U	2U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U	2U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	10U	4U	4U	2U	4U	4U	2U	2U	2U	2U	4U	2U	2U	5U	2U	2U	2U	5U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1J	0.5U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	1U	3U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	10U	4U	4U	2U	4U	4U	2U	2U	2U	2U	4U	2U	2U	5U	2U	2U	2U	5U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	80	3U	1U	1U	1U	3U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	1U	3U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	1U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	6J	3U	5J	7J	4J	9J	15U	9J	6U	8J	14J	6U	3U	3U	3U	12	6U	8J	10J	8J	6J	7J	3U	8U
2-Hexanone	ug/L	N	300	3UJ	3U	3U	3U	3U	3U	15U	6U	6U	3U	6U	6U	3U	3U	3U	3U	6U	3U	3U	8U	3U	3U	3U	8U
4-Methyl-2-pentanone	ug/L	N	100	3UJ	3U	3U	3U	3U	3U	15U	6U	6U	3U	6U	6U	3U	3U	3U	3U	6U	3U	3U	8U	3U	3U	3U	8U
Acetone	ug/L	N	6000	11J	6UJ	6U	10J	11J	24	30U	30J	47	34	62	12U	9J	11J	6U	14J	12J	14J	14J	15U	6U	6U	6U	15U
Benzene	ug/L	N	1	2	3	3	2	3	8	190	120	120	150	300	100	100	130	150	140	150	160	180	210	260	160	160	170
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U
Carbon Dioxide	ug/L	N	NS	1U	1U	1U	1U	1U	1U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	1U	3U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U	2U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U	2U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U	2U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U
Cyclohexane	ug/L	N	100	20	21	25	21	22	45	600	380	400	410	480	270	330	320	430	270	310	350	350	500	420	410	560	430
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	4U	4U	2U	4U	4U	2U	2U	2U	2U	4U	2U	2U	5U	2U	2U	0.5U	1U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.7J	0.7J	0.5U	0.7J	1	310	270	190	250	190	230	150	160	170	160	66	82	90	110	68	83	88	54
Isopropylbenzene	ug/L	N	700	30	35	34	28	31	32	55	59	34	46	31	45	35	35	42	44	27	32	38	37	29	39	45	31
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7500	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	1U	3U
Methyl-t-butyl ether	ug/L	N	70	0.8J	1	2	1	0.5U	2	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	1U
Methylcyclohexane	ug/L	N	100	120	150	130	130	120	140	630	440	590	600	550	290	490	360	650	260	340	520	560	720	370	620	590	600
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	10U	4U	4U	2U	4U	4U	2U	2U	2U	2U	4U	2U	2U	5U	2U	2U	2U	5U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	1U	3U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U	2U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U
Toluene	ug/L	N	600	3	3	3	3	3	6	100	110	100	140	67	130	99	110	110	130	110	86	97	100	80	88	120	80
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U	2U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	2	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	4U	4U	2U	4U	4U	2U	2U	2U	2U	4U	2U	2U	5U	2U	2U	0.5U	1U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U
Xylene (total)	ug/L	N	1000	5	6	5	6	5	7	2500	2000	2100	2200	2000	1500	1800	1800	2300	1900	1800	2000	2000	2800	1700	2000	2500	1900
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	1800J+	2000J+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-264	MW-264
			Sample Date	12/05/2014	01/14/2015	09/15/2015	03/03/2016	12/20/2016	02/08/2017	08/22/2017	03/09/2007	05/17/2007	12/13/2007	07/01/2008	10/21/2008	07/07/2009	11/24/2009	06/02/2010	09/21/2010	06/07/2011	03/09/2012	04/09/2013	05/29/2014	06/08/2016	05/08/2017	03/09/2007	05/16/2007
			Field Sample ID	M259C1X	M259C2X	M259C3X	M259C4X	M259C5X	M259C6X	M259C7X	M263A1X	M263A2X	M263A3X	M263A4X	M263A5X	M263A6X	M263A7X	M263A8X-100602	M263A9X	M263B1X	M263B2X	M263B3X	M263B4X	M263B5X	M263B6X	M264A1X	M264A2X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	0.8U	0.8U	4U	8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U
1,1,1-Trichloroethane	ug/L	N	30	1U	0.5U	0.5U	0.5U	1U	1UJ	0.5U	0.8U	0.8U	4U	8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
1,1,2-Trichloroethane	ug/L	N	3	1U	0.5U	0.5U	0.5U	1U	1U	11	0.8U	0.8U	4U	8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	4U	2U	2U	2U	4U	4U	2U	2U	2U	10U	20U	5U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	10U	20U
1,1-Dichloroethane	ug/L	N	50	1U	0.5U	1J	0.5U	1U	1U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
1,2,4-Trichlorobenzene	ug/L	N	9	2U	1U	1U	1U	2U	2U	1U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	4U	2U	2U	2U	4U	4U	2U	2U	2U	10U	20U	5U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	10U	20U
1,2-Dibromoethane	ug/L	N	0	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	2U	1U	1U	1U	2U	2U	1U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U
1,2-Dichloroethane	ug/L	N	2	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
1,2-Dichloropropane	ug/L	N	1	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
1,3-Dichlorobenzene	ug/L	N	600	2U	1U	1U	1U	2U	2U	1U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U
1,4-Dichlorobenzene	ug/L	N	75	2U	1U	1U	1U	2U	2U	1U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	10J	3U	8J	11	6J	13J	3U	5J	5J	15U	30U	8U	7J	7J	3U	4J	6J	5J	9J	3U	-	5J	6J	15U	30U
2-Hexanone	ug/L	N	300	6U	3U	3UJ	3U	6UJ	6U	11J	3U	3U	15U	30U	8U	3U	3U	3U	3U	3U	3U	3U	3U	-	3UJ	3U	15U	30U
4-Methyl-2-pentanone	ug/L	N	100	6U	3U	3U	3U	6U	6U	3U	3U	7J	15U	30U	8U	3U	3U	3U	3U	3U	3U	3U	3U	-	3UJ	3U	15U	30U
Acetone	ug/L	N	6000	12U	6U	12J	20	15J	20J	12J	23	18J	30U	60U	15U	25	31	6U	19J	18J	26	30	30	-	25	27	30U	60U
Benzene	ug/L	N	1	210	380	260	230	370	290	270	89	64	59	63	60	64	99	66	86	64	58	75	60	95	65	20J	10J
Bromodichloromethane	ug/L	N	1	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Bromoform	ug/L	N	4	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	0.5U	0.5U	0.5U	1U	1UJ	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5UJ	0.5U	5U	10U
Carbon Dioxide	ug/L	N	NS	2U	1U	1U	1U	2U	2U	1U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Chlorobenzene	ug/L	N	50	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	0.8U	0.8U	4U	8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U
Chloroethane	ug/L	N	5	1U	0.5U	0.5U	0.5U	1U	1UJ	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Chloroform	ug/L	N	70	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1J	0.8U	4U	8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
cis-1,2-Dichloroethene	ug/L	N	70	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	0.8U	0.8U	4U	8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Cyclohexane	ug/L	N	100	430	280	280	350	360	320	410	33	27	22J	27J	10J	22	30	3J	34	26	28	33	30	-	32	18	40	51
Dibromochloromethane	ug/L	N	1	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	1U	0.5U	0.5U	0.5U	1UJ	1U	0.5U	2U	2U	10U	20U	5U	2U	2U	2U	2U	2U	2U	2U	2U	-	0.5U	0.5U	10U	20U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	54	72	54	100	71	93	130	81	42	61	60	39	64	73	29	52	41	40	38	26	24	18	4U	8U
Isopropylbenzene	ug/L	N	700	29	36	30	41	37	44	47	5J	3J	6J	10U	3J	7	6	1J	5J	5J	5	7	-	8	6	6J	10U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	2U	1U	1U	1U	2U	2U	1U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U
Methyl-t-butyl ether	ug/L	N	70	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	3U	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	3U	5U
Methylcyclohexane	ug/L	N	100	480	250	270	280	220	140	250	28	24	13J	21J	6J	16	21	1U	26	20	22	26	-	24	14	16J	20J
Methylene chloride (Dichloromethane)	ug/L	N	3	4U	2U	2U	2U	4U	4U	2U	2J	2U	10U	20U	5U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	10U	20U
Styrene	ug/L	N	100	2U	1U	1U	1U	2U	2U	1U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U
Tetrachloroethene	ug/L	N	1	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	0.8U	0.8U	4U	8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U
Toluene	ug/L	N	600	100	110	68	170	120	130	150	3J	2J	4U	7U	4J	9	12	4J	9	7	5	4J	5U	3	3	150	190
trans-1,2-Dichloroethene	ug/L	N	100	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	0.8U	0.8U	4U	8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	1U	0.5U	0.5U	0.5U	1U	1UJ	0.5U	2U	2U	10U	20U	5U	2U	2U	2U	2U	2U	2U	2U	-	0.5U	0.5U	10U	20U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Xylene (total)	ug/L	N	1000	2100	1500	1200	1800	1400	1400	2100	79	29	18J	41J	26	60	65	13	53	44	35	23	15	11	6	41	41J
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335
			Sample Date	12/05/2007	07/24/2008	10/21/2008	06/26/2009	10/27/2009	06/15/2010	09/16/2010	05/24/2011	02/29/2012	03/21/2013	09/10/2014	12/04/2015	06/10/2016	07/22/2016	05/11/2017	10/18/2012	10/18/2012	12/14/2012	12/14/2012	02/15/2013	02/15/2013	04/18/2013	04/18/2013	09/20/2013
			Field Sample ID	M264A3X	M264A4X	M264A5X	M264A6X	M264A7X	M264A8X-100615	M264A9X	M264B1X	M264B2X	M264B3X	M264B4X	M264B5X	M264B6X	M264B7X	M264B8	M335A1X	M335A1X	M335A2X	M335A2X	M335A3X	M335A3X	M335A4X	M335A4X	M335A5
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U	5U	0.5UJ	5U	0.5U	5U	450	-	46	-	33	-	74J	-	14
1,1,1-Trichloroethane	ug/L	N	30	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U	5U	0.5UJ	5U	0.5U	5U	19	-	0.8U	-	0.8U	-	-	-	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	1U	-	1U	-	1U	-	-	-	1U
1,1,2-Trichloroethane	ug/L	N	3	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U	5U	0.5UJ	5U	0.5U	5U	2J	-	0.8U	-	0.8U	-	-	-	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	20U	20U	10U	50U	20U	20U	2U	20U	20U	2U	20U	2UJ	20U	2U	20U	2U	-	2U	-	2U	-	-	-	2U
1,1-Dichloroethane	ug/L	N	50	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	170	-	19	-	3J	-	5J	-	1U
1,2,4-Trichlorobenzene	ug/L	N	9	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	10U	1UJ	10U	1U	10U	1U	-	1U	-	1U	-	-	-	1UJ
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	20U	20U	10U	50U	20U	20U	2U	20U	20U	2U	20U	2UJ	20U	2U	20U	2U	-	2U	-	2U	-	-	-	2U
1,2-Dibromoethane	ug/L	N	0	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	1U	-	1U	-	1U	-	-	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	10U	1UJ	10U	1U	10U	1U	-	1U	-	1U	-	-	-	1U
1,2-Dichloroethane	ug/L	N	2	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	3J	-	1U	-	1U	-	-	-	1U
1,2-Dichloropropane	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	1U	-	1U	-	1U	-	-	-	1U
1,3-Dichlorobenzene	ug/L	N	600	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	10U	1UJ	10U	1U	10U	1U	-	1U	-	1U	-	-	-	1U
1,4-Dichlorobenzene	ug/L	N	75	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	10U	1UJ	10U	1U	10U	1U	-	1U	-	1U	-	-	-	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	30U	30U	15U	75U	30U	63J	3U	41J	30U	30	30U	3UJ	30U	3U	30U	3U	-	620	-	340	-	280J	-	110
2-Hexanone	ug/L	N	300	30U	30U	15U	75U	30U	30U	3U	30U	30U	3U	30U	3UJ	30U	3U	30U	3U	-	3U	-	3U	-	-	-	3U
4-Methyl-2-pentanone	ug/L	N	100	30U	30U	15U	75U	30U	30U	3U	30U	30U	3U	30U	3UJ	30U	3U	30U	3U	-	9J	-	8J	-	7J	-	3U
Acetone	ug/L	N	6000	60U	60U	30U	150U	60U	60U	6U	91J	60U	38	60U	45J+	60U	6U	60U	6U	-	54000	-	35000J	-	29000J	-	5000
Benzene	ug/L	N	1	9J	9J	3U	13U	5U	5U	1J	5U	5U	3J	8J	0.8J	5U	2	5U	41	-	5	-	10	-	29J	-	28
Bromodichloromethane	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	1U	-	1U	-	1U	-	-	-	1U
Bromoform	ug/L	N	4	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	1U	-	1U	-	1U	-	-	-	1U
Bromomethane (Methyl bromide)	ug/L	N	10	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5UJ	5U	1U	-	1U	-	1U	-	-	-	1U
Carbon Dioxide	ug/L	N	NS	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	10U	1UJ	10U	1U	10U	290000	-	360000	-	370000	-	480000J	-	450000
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	1U	-	-	-	1U
Carbon Tetrachloride	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	1U	-	1U	-	1U	-	-	-	1U
Chlorobenzene	ug/L	N	50	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U	5U	0.5UJ	5U	0.5U	5U	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
Chloroethane	ug/L	N	5	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	7	-	3J	-	24	-	45J	-	29
Chloroform	ug/L	N	70	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U	5U	0.5UJ	5U	0.5U	5U	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	1U	-	1U	-	1U	-	-	-	1U
cis-1,2-Dichloroethene	ug/L	N	70	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U	5U	0.5UJ	5U	0.5U	5U	12	-	2J	-	4J	-	7J	-	6
cis-1,3-Dichloropropene	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	1U	-	1U	-	1U	-	-	-	1U
Cyclohexane	ug/L	N	100	76	47J	18J	50U	37J	56	42	66	79	95	50	30J	58	57	47J	5J	-	2U	-	2U	-	-	-	2U
Dibromochloromethane	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	1U	-	1U	-	1U	-	-	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	20U	20U	10U	50U	20U	20U	2U	20U	20U	2U	5U	0.5UJ	5U	0.5U	5U	2U	-	2U	-	2U	-	-	-	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.9	-	0.36	-	0.0024J	-	0.19	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.4	-	1.3	-	0.02U	-	4.4	-
Ethylbenzene	ug/L	N	700	8U	8U	4U	20U	8U	8U	0.8U	8U	8J	8	5J	0.6J	5U	4	5U	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
Isopropylbenzene	ug/L	N	700	15J	10U	5U	25U	10U	10U	6	10U	12J	13	10U	6J	11J	9	10U	1J	-	1U	-	1U	-	-	-	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4600	-	8200	-	150	-	13000	-
Methyl acetate	ug/L	N	7000	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	10U	1UJ	10U	1U	10U	1U	-	1U	-	1U	-	-	-	1U
Methyl-t-butyl ether	ug/L	N	70	5U	5U	3J	13U	5U	5U	3J	5U	5U	2J	5U	2J	5U	1	5U	0.9J	-	0.5U	-	0.5U	-	-	-	0.5U
Methylcyclohexane	ug/L	N	100	24J	17J	5U	25U	17J	24J	8	33J	42J	48	29J	10J	31J	27	25J	1J	-	1U	-	1U	-	-	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	20U	20U	10U	50U	20U	20U	2U	20U	20U	2U	20U	2UJ	20U	2U	20U	2U	-	2U	-	2U	-	-	-	2U
Styrene	ug/L	N	100	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	10U	1UJ	10U	1U	10U	1U	-	1U	-	1U	-	-	-	1U
Tetrachloroethene	ug/L	N	1	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U	5U	0.5UJ	5U	0.5U	5U	6	-	0.8U	-	0.8U	-	-	-	0.8U
Toluene	ug/L	N	600	300	340	31	280	290	280	12	280	470	440	320	34J	350	280	330	0.7U	-	0.7U	-	0.7U	-	-	-	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U	5U	0.5UJ	5U	0.5U	5U	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	1U	-	1U	-	1U	-	-	-	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	50	-	2J	-	3J	-	7J	-	3J
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	20U	20U	10U	50U	20U	20U	2U	20U	20U	2U	5U	0.5UJ	5U	0.5U	5U	2U	-	2U	-	2U	-	-	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	92	-	7	-	4J	-	14J	-	4J
Xylene (total)	ug/L	N	1000	75	63	17J	32J	58	68	16	61	86	89	64	19J	86	90	86	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	1200	-	2600	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-340	MW-340	MW-340	MW-340	MW-340	MW-340
			Sample Date	09/20/2013	12/18/2013	12/18/2013	03/12/2014	03/12/2014	06/20/2014	06/20/2014	01/19/2015	01/19/2015	01/19/2015	04/22/2015	04/22/2015	04/22/2015	07/08/2015	07/08/2015	10/08/2015	10/08/2015	11/07/2017	04/29/2013	06/25/2013	07/03/2014	08/05/2014	01/16/2015	07/16/2015
			Field Sample ID	M335A5	M335A6X	M335A6X	M335A7X	M335A7X	M335A8X	M335A8X	M335A9X	M335A9X	M335A9X	M335B1X	M335B1X	M335B1X	M335B2X	M335B2X	M335B3X	M335B3X	M335B9X	M340A1X	M340A2X	M340A3X	M340A4X	M340A5X	M340A6X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	8	-	3J	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	2	0.8U	0.8U	5U	5UJ	0.5U	10U
1,1,1-Trichloroethane	ug/L	N	30	-	0.8U	-	0.8U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	5U	5UJ	0.5U	10U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	1U	-	1U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U
1,1,2-Trichloroethane	ug/L	N	3	-	0.8U	-	0.8U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	5U	5UJ	0.5U	10U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	-	2U	-	10U	-	-	2U	-	-	2UJ	-	-	2U	-	2U	2U	2U	2U	20U	20UJ	2U	40U
1,1-Dichloroethane	ug/L	N	50	-	1U	-	1J	-	3U	-	-	2	-	-	3J	-	-	6	-	7	2	1U	1U	5U	5UJ	0.5U	10U
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	-	1U	-	5U	-	-	1UJ	-	-	1UJ	-	-	1U	-	1U	1U	1U	1U	10U	10UJ	1U	20U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	-	2U	-	10U	-	-	2U	-	-	2UJ	-	-	2U	-	2U	2U	2U	2U	20U	20UJ	2U	40U
1,2-Dibromoethane	ug/L	N	0	-	1U	-	1U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	-	1U	-	5U	-	-	1U	-	-	1UJ	-	-	1U	-	1U	1U	1U	1U	10U	10UJ	1U	20U
1,2-Dichloroethane	ug/L	N	2	-	1U	-	1U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.7J	0.5U	1U	1U	5U	5UJ	0.5U	10U
1,2-Dichloropropane	ug/L	N	1	-	1U	-	1U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U
1,3-Dichlorobenzene	ug/L	N	600	-	1U	-	1U	-	5U	-	-	1U	-	-	1UJ	-	-	1U	-	1U	1U	1U	1U	10U	10UJ	1U	20U
1,4-Dichlorobenzene	ug/L	N	75	-	1U	-	1U	-	5U	-	-	1U	-	-	1UJ	-	-	1U	-	1U	1U	1U	1U	10U	10UJ	1U	20U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	46	-	15	-	15U	-	-	3U	-	-	3UJ	-	-	3U	-	3U	3U	6J	77	200	200J	19	60U
2-Hexanone	ug/L	N	300	-	3U	-	3U	-	15U	-	-	3U	-	-	3UJ	-	-	3U	-	3U	3U	3U	5J	30U	36J	3U	60U
4-Methyl-2-pentanone	ug/L	N	100	-	3U	-	3U	-	15U	-	-	3U	-	-	3UJ	-	-	3U	-	3U	3U	3U	3U	30U	36J	3U	60U
Acetone	ug/L	N	6000	-	570	-	170	-	30U	-	-	11J	-	-	6UJ	-	-	6U	-	14J	60	18J	56	770	720J	71	120U
Benzene	ug/L	N	1	-	24	-	17	-	10	-	-	21	-	-	24J	-	-	27	-	31	9	730	780	320	210J	640	660
Bromodichloromethane	ug/L	N	1	-	1U	-	1U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U
Bromoform	ug/L	N	4	-	1U	-	1U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U
Bromomethane (Methyl bromide)	ug/L	N	10	-	1U	-	1U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U
Carbon Dioxide	ug/L	N	NS	-	400000	-	370000	-	190000	-	-	220000	-	-	290000J	-	-	25000	-	140000	91000	1U	1U	46J	36J	1U	20U
Carbon disulfide	ug/L	N	700	-	1U	-	1U	-	5U	-	-	1U	-	-	1UJ	-	-	1U	-	1U	1U	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	1U	-	1U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U
Chlorobenzene	ug/L	N	50	-	0.8U	-	0.8U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	5U	5UJ	0.5U	10U
Chloroethane	ug/L	N	5	-	23	-	24	-	19	-	-	24	-	-	31J	-	-	30	-	33	7	1U	1U	5U	5UJ	0.5U	10U
Chloroform	ug/L	N	70	-	0.8U	-	0.8U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	5U	5UJ	0.5U	10U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	1U	-	1U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U
cis-1,2-Dichloroethene	ug/L	N	70	-	3J	-	2J	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.6J	0.8U	0.8U	5U	5UJ	0.5U	10U
cis-1,3-Dichloropropene	ug/L	N	1	-	1U	-	1U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U
Cyclohexane	ug/L	N	100	-	2U	-	2U	-	10U	-	-	2U	-	-	2UJ	-	-	2U	-	2U	2U	80	70	38J	31UJ	78	40U
Dibromochloromethane	ug/L	N	1	-	1U	-	1U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	1U	1U	5U	5UJ	0.5UJ	10U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	2U	-	2U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	2U	2U	5U	5UJ	0.5U	10U
Ethane	ug/L	N	NS	0.1	-	0.35	-	0.46	-	0.3	2.50	-	2.5	5.00n	-	5	7.50n	-	7.80n	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	4	-	6.4	-	4.3	-	2.3	0.67	-	0.67	0.48n	-	0.48	0.80n	-	0.92n	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	-	0.8U	-	0.8U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	400	540	200	150J	410	340
Isopropylbenzene	ug/L	N	700	-	1U	-	1U	-	5U	-	-	1U	-	-	1UJ	-	-	1U	-	1U	1U	36	31	14J	12J	25	20U
Methane	ug/L	N	NS	17000	-	12000	-	11000	-	8900	15000.00	-	15000	14000.00n	-	14000	15000.00n	-	13000.00n	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	-	1U	-	5U	-	-	1U	-	-	1UJ	-	-	1U	-	1U	1U	1U	1U	10U	10UJ	1U	20U
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	-	0.5U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5J	-	0.5U	0.5U	0.5U	0.5U	5U	5UJ	0.5U	10U
Methylcyclohexane	ug/L	N	100	-	1U	-	1U	-	5U	-	-	1U	-	-	1UJ	-	-	1U	-	1U	1U	89	87	82	75J	110	37J
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	-	2U	-	10U	-	-	2U	-	-	2UJ	-	-	2U	-	2U	0.5U	2U	2U	20U	20UJ	2U	40U
Styrene	ug/L	N	100	-	1U	-	1U	-	5U	-	-	1U	-	-	1UJ	-	-	1U	-	1U	1U	1U	1U	10U	10UJ	1U	20U
Tetrachloroethene	ug/L	N	1	-	0.8U	-	0.8U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	5U	5UJ	0.5U	10U
Toluene	ug/L	N	600	-	0.7U	-	0.7U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5J	0.5U	320	340	120	70J	160	85
trans-1,2-Dichloroethene	ug/L	N	100	-	0.8U	-	0.8U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	5U	5UJ	0.5U	10U
trans-1,3-Dichloropropene	ug/L	N	1	-	1U	-	1U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	1J	-	1U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.8J	1U	1U	5U	5UJ	0.5U	10U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	2U	-	2U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	2U	2U	5U	5UJ	0.5U	10U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	3J	-	3J	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	3	1U	1U	5U	5UJ	0.5U	10U
Xylene (total)	ug/L	N	1000	-	0.8U	-	0.8U	-	3U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	1400	1400	800	580J	1300	500
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-340	MW-340	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-360	MW-360	MW-360	MW-360	MW-360	MW-360	MW-360	MW-360
			Sample Date	12/11/2015	05/11/2017	06/06/2013	09/13/2013	11/19/2013	01/29/2014	04/04/2014	07/01/2014	11/26/2014	04/07/2015	05/13/2015	08/18/2015	08/18/2015	10/27/2015	10/27/2015	09/20/2017	06/06/2013	09/16/2013	11/21/2013	01/29/2014	04/04/2014	07/01/2014	11/26/2014	04/07/2015
			Field Sample ID	M340A7X	M340A8X	M359A1X	M359A2X	M359A3X	M359A4X	M359A5X	M359A6X	M359A7X	M359A8X	M359A9X	D0818151	M359B1X	D1027151	M359B2X	M359B6X	M360A1X	M360A2X	M360A3X	M360A4X	M360A5X	M360A6X	M360A7X	M360A8X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	3UJ	5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	3UJ	5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	3UJ	5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	3UJ	5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	10UJ	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	3UJ	5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1	4J	16	17	4J	4	5	8	5
1,2,4-Trichlorobenzene	ug/L	N	9	5UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	10UJ	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	3UJ	5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	5UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	3UJ	5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	3UJ	5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
1,3-Dichlorobenzene	ug/L	N	600	5UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	5UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	15UJ	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	15UJ	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	15UJ	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	42J	60U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Benzene	ug/L	N	1	500J	380	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	3UJ	5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	3UJ	5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	3UJ	5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Carbon Dioxide	ug/L	N	NS	5UJ	10U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	3UJ	5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	3UJ	5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	3UJ	5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	3UJ	5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	3UJ	5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	3UJ	5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	3UJ	5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	46J	34J	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	3UJ	5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	3UJ	5U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	310J	180	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	16J	16J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	5UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	3UJ	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	56J	46J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	10UJ	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	5UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	3UJ	5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	79J	56	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	3UJ	5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	3UJ	5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	3UJ	5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	3UJ	5U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	3UJ	5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	550J	140	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	7100J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-360	MW-360	MW-360	MW-360	MW-361	MW-361	MW-361	MW-361	MW-361	MW-361	MW-361	MW-361	MW-361	MW-361	MW-361	MW-361	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362
			Sample Date	05/13/2015	08/18/2015	10/27/2015	09/20/2017	06/06/2013	09/16/2013	11/21/2013	01/31/2014	01/31/2014	04/08/2014	07/01/2014	02/12/2015	05/15/2015	08/18/2015	11/04/2015	05/10/2016	06/06/2013	09/19/2013	11/21/2013	11/21/2013	01/31/2014	04/17/2014	07/25/2014	11/26/2014
			Field Sample ID	M360A9X	M360B1X	M360B2X	M360B6X	M361A1X	M361A2X	M361A3X	D0131141	M361A4X	M361A5X	M361A6X	M361A7X	M361A8X	M361A9X	M361B1X	M361B2X	M362A1X	M362A2X	D1121131	M362A3X	M362A4X	M362A5X	M362A6X	M362A7X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	5	7	8	9	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	8	7	5J	5	5	5	3	3	3	5	3	3	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	19J	6U	6U	6U	6U	6U	6U	6U
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
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Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-362	MW-362	MW-362	MW-362	MW-362	MW-363	MW-363	MW-363	MW-363	MW-363	MW-363	MW-363	MW-363	MW-363	MW-363	MW-363	MW-364	MW-364	MW-364	MW-364	MW-364	MW-364	MW-364	MW-364
			Sample Date	04/01/2015	06/16/2015	08/20/2015	11/04/2015	09/21/2017	06/06/2013	09/19/2013	11/26/2013	01/31/2014	04/04/2014	07/01/2014	04/02/2015	06/16/2015	08/20/2015	11/04/2015	09/21/2017	06/19/2013	09/19/2013	11/26/2013	04/08/2014	07/01/2014	04/09/2015	06/25/2015	09/03/2015
			Field Sample ID	M362A8X	M362A9X	M362B1X	M362B2X	M362B6X	M363A1X	M363A2X	M363A3X	M363A4X	M363A5X	M363A6X	M363A7X	M363A8X	M363A9X	M363B1X	M363B5X	M364A1X	M364A2X	M364A3X	M364A5X	M364A6X	M364A7X	M364A8X	M364A9X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	7J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5UJ	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-364	MW-365	MW-367	MW-367	MW-367	MW-367	MW-367	MW-367	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368
			Sample Date	09/21/2017	06/27/2013	06/14/2013	10/21/2015	10/21/2015	11/14/2017	11/14/2017	02/19/2018	06/06/2013	06/06/2013	06/24/2014	06/24/2014	10/30/2014	10/30/2014	10/30/2014	01/16/2015	01/16/2015	01/16/2015	04/23/2015	04/23/2015	04/23/2015	07/09/2015	07/09/2015	07/09/2015
			Field Sample ID	M364B6X	M365A1X	M367A1X	M367A2X	M367A2X	D1114175	M367A8X	M367A9X	M368A1X	M368A1X	M368A2X	M368A2X	M368A4X	M368A4X	M368A4X	M368A6X	M368A6X	M368A6X	M368A7X	M368A7X	M368A7X	D07091515	M368A8X	M368A8X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	37	0.8U	-	45	110	99	120	420	-	15	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	5	-	5
1,1,1-Trichloroethane	ug/L	N	30	0.5U	8	0.8U	-	250	690	590	640	240	-	2	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	1U	1U	-	0.5U	0.5U	0.5U	0.5U	1U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.8U	0.8U	-	0.8J	1	1	1J	1J	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	-	2U	2U	2U	2U	2U	-	2U	-	-	2U	-	-	2U	-	-	2U	-	2U	-	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	13	1U	-	7	24	24	36	200	-	140	-	-	1	-	-	11	-	-	8	-	18	-	18
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	-	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	-	1U	-	-	1U	-	1U	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	-	2U	2U	2U	2UJ	2U	-	2U	-	-	2U	-	-	2U	-	-	2U	-	2U	-	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	1U	1U	-	0.5U	0.5U	0.5U	0.5U	1U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	-	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	-	1U	-	-	1U	-	1U	-	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	1U	1U	-	0.5U	0.5U	0.5U	0.5U	1J	-	0.5U	-	-	0.6J	-	-	0.5U	-	-	0.5U	-	0.5U	-	1J
1,2-Dichloropropane	ug/L	N	1	0.5U	1U	1U	-	0.5U	0.5U	0.5U	0.5U	1U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	-	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	-	1U	-	-	1U	-	1U	-	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	-	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	-	1U	-	-	1U	-	1U	-	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	-	3U	3U	3U	3UJ	3U	-	17	-	-	10	-	-	10	-	-	3U	-	3U	-	3U
2-Hexanone	ug/L	N	300	3U	3U	3U	-	3U	3U	3U	3UJ	3U	-	3U	-	-	3U	-	-	3U	-	-	3U	-	3U	-	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	-	3U	3U	3U	3UJ	3U	-	3U	-	-	3U	-	-	3U	-	-	3U	-	3U	-	3U
Acetone	ug/L	N	6000	6U	6U	6U	-	6U	6U	6U	6U	6U	-	850	-	-	360	-	-	200	-	-	38	-	17J	-	14J
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	120	-	9	-	-	12	-	-	13	-	-	13	-	10	-	11
Bromodichloromethane	ug/L	N	1	0.5U	1U	1U	-	0.5U	0.5U	0.5U	0.5U	1U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
Bromoform	ug/L	N	4	0.5U	1U	1U	-	0.5U	0.5U	0.5U	0.5U	1U	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	-	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	1U	1U	-	0.5U	0.5U	0.5U	0.5U	1U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	98000	-	80000	-	64000	80000	210000	-	220000	-	-	260000	-	-	230000	-	-	360000	-	-	-	320000
Carbon disulfide	ug/L	N	700	1U	1U	1U	-	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	-	1U	-	-	1U	-	1U	-	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	1U	1U	-	0.5U	0.5U	0.5U	0.5U	1U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
Chlorobenzene	ug/L	N	50	0.5U	0.8U	0.8U	-	0.5U	0.8J	0.6J	0.8J	0.8U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
Chloroethane	ug/L	N	5	0.5U	1U	1U	-	0.5U	0.5U	0.5U	0.5U	78	-	64	-	-	130	-	-	170	-	-	170	-	170	-	180
Chloroform	ug/L	N	70	0.5U	0.8U	0.9J	-	0.5U	0.5U	0.5U	0.5U	0.8U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	1U	1U	-	0.5U	0.5U	0.5U	0.5U	1U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	1J	0.8U	-	0.5J	0.5U	0.5U	0.5U	8	-	1	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5J
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	1U	-	0.5U	0.5U	0.5U	0.5U	1U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
Cyclohexane	ug/L	N	100	2U	2U	2U	-	2U	2U	2U	2U	8	-	2U	-	-	2U	-	-	2U	-	-	2U	-	2U	-	2U
Dibromochloromethane	ug/L	N	1	0.5U	1U	1U	-	0.5U	0.5U	0.5U	0.5U	1U	-	0.5U	-	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	0.5U	-	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	2U	2U	-	0.5U	0.5U	0.5U	0.5U	2U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
Ethane	ug/L	N	NS	-	-	-	0.04Jn	-	-	-	-	-	17	-	6.5	5.60	-	5.6	8.10	-	8.1	7.00n	-	7	-	5.00n	-
Ethene	ug/L	N	NS	-	-	-	0.24n	-	-	-	-	-	2.8	-	32	0.26	-	0.26	0.0030U	-	0.003U	1.10n	-	1.1	-	0.63n	-
Ethylbenzene	ug/L	N	700	0.5U	0.8U	0.8U	-	0.5U	0.5U	0.5U	0.5U	0.8U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	-	1U	1U	1U	1U	3J	-	1U	-	-	1U	-	-	1U	-	-	1U	-	1U	-	1U
Methane	ug/L	N	NS	-	-	-	21.00n	-	-	-	-	-	4200	-	15000	17000.00	-	17000	13000.00	-	13000	16000.00n	-	16000	-	16000.00n	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	-	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	-	1U	-	-	1U	-	1U	-	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.7J	-	-	0.7J	-	-	0.7J	-	-	0.5U	-	0.5U	-	0.6J
Methylcyclohexane	ug/L	N	100	1U	1U	1U	-	1U	1U	1U	1U	3J	-	1U	-	-	1U	-	-	1U	-	-	1U	-	1U	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	0.5U	2U	2U	-	2U	0.5U	0.5U	0.5U	2J	-	2U	-	-	2U	-	-	2U	-	-	2U	-	2U	-	2U
Styrene	ug/L	N	100	1U	1U	1U	-	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	-	1U	-	-	1U	-	1U	-	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.8U	0.8U	-	2	4	4	5	8	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
Toluene	ug/L	N	600	0.5U	0.7U	0.7U	-	0.5U	0.5U	0.5U	0.5U	0.7U	-	0.5U	-	-	0.5U	-	-	0.9J	-	-	0.8J	-	0.7J	-	0.8J
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.8U	0.8U	-	0.5U	0.5U	0.5U	0.5U	2J	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	1U	-	0.5U	0.5U	0.5U	0.5U	1U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	3J	1U	-	5	11	10	10	31	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.8J	-	1J	-	2J
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	2U	2U	-	0.5U	0.5U	0.5U	0.5U	2U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	1J	1U	-	0.5U	0.5U	0.5U	0.5U	22	-	11	-	-	0.5U	-	-	0.7J	-	-	1	-	6	-	7
Xylene (total)	ug/L	N	1000	0.5U	0.8U	0.8U	-	0.5U	0.5U	0.5U	0.5U	2J	-	0.5U	-	-	0.5U	-	-	0.7J	-	-	0.7J	-	0.6J	-	0.6J
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-368	MW-368	MW-368	MW-368	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-370
			Sample Date	10/12/2015	10/12/2015	11/15/2017	02/20/2018	06/06/2013	06/06/2013	10/28/2014	10/28/2014	10/28/2014	10/28/2014	01/13/2015	01/13/2015	01/13/2015	04/21/2015	04/21/2015	04/21/2015	07/10/2015	07/10/2015	10/09/2015	10/09/2015	10/09/2015	11/15/2017	02/21/2018	06/05/2013
			Field Sample ID	M368A9X	M368A9X	M368B7X	M368B8X	M369A1X	M369A1X	D1028145	M369A2X	M369A2X	M369A2X	M369A4X	M369A4X	M369A4X	M369A5X	M369A5X	M369A5X	M369A6X	M369A6X	D1009155	M369A7X	M369A7X	M369RB5X	M369RB6X	M370A1X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	2	170	300	170	-	160	-	150	-	-	150	-	-	110	-	-	160	120	-	140	420	280	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	0.5U	170	460	66	-	41	-	40	-	-	29	-	-	19	-	-	25	15	-	19	720	500	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	0.5U	0.5U	0.5U	1U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	0.5U	0.8J	1	0.8U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5J	-	0.5U	2	0.8J	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	2U	2U	2U	-	2U	-	2U	-	-	2U	-	-	2U	-	-	2U	2U	-	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	32	390	470	150	-	88	-	85	-	-	86	-	-	73	-	-	110	93	-	100	260	270	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	1U	1U	-	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	2U	2U	2U	-	2U	-	2U	-	-	2U	-	-	2U	-	-	2U	2U	-	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	0.5U	0.5U	0.5U	1U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	1U	1U	-	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	0.9J	1	2	1U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.6J	-	0.6J	1	0.5U	1U
1,2-Dichloropropane	ug/L	N	1	-	0.5U	0.5U	0.5U	1U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	1U
1,3-Dichlorobenzene	ug/L	N	600	-	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	1U	1U	-	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	1U	1U	-	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	3U	3U	3U	-	3U	-	3U	-	-	3U	-	-	3U	-	-	3U	3U	-	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	-	3U	3U	3UJ	3U	-	3U	-	3U	-	-	3U	-	-	3U	-	-	3U	3U	-	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	3U	3U	3U	3U	-	3U	-	3U	-	-	3U	-	-	3U	-	-	3U	3U	-	3U	3U	3U	3U
Acetone	ug/L	N	6000	-	11J	64	6U	15J	-	6U	-	6U	-	-	6U	-	-	6U	-	-	6U	6U	-	6U	6U	6U	6U
Benzene	ug/L	N	1	-	9	9	6	17	-	5	-	5	-	-	5	-	-	3	-	-	4	3	-	3	7	4	0.5U
Bromodichloromethane	ug/L	N	1	-	0.5U	0.5U	0.5U	1U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	1U
Bromoform	ug/L	N	4	-	0.5U	0.5U	0.5U	1U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	0.5U	0.5U	0.5U	1U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	1U
Carbon Dioxide	ug/L	N	NS	-	170000J	140000	190000	200000	-	-	-	160000	-	-	170000	-	-	140000	-	-	150000	-	-	140000	180000	180000	-
Carbon disulfide	ug/L	N	700	-	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	1U	1U	-	1U	1U	1U	5J
Carbon Tetrachloride	ug/L	N	1	-	0.5U	0.5U	0.5U	1U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	1U
Chlorobenzene	ug/L	N	50	-	0.5U	0.5U	0.5U	0.8U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.8U
Chloroethane	ug/L	N	5	-	140	160	180	73	-	37	-	35	-	-	39	-	-	30	-	-	40	39	-	41	120	100	1U
Chloroform	ug/L	N	70	-	0.5U	0.5U	0.5U	0.8U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.7J	0.5U	1J
Chloromethane (Methyl chloride)	ug/L	N	NS	-	0.5U	0.5U	0.5U	1U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	0.5U	6	11	5J	-	4J	-	3J	-	-	4	-	-	3	-	-	4	3	-	3	10	10	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	0.5U	0.5U	0.5U	1U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	1U
Cyclohexane	ug/L	N	100	-	2U	2U	2U	2U	-	2U	-	2U	-	-	2U	-	-	2U	-	-	2U	2U	-	2U	2J	2U	2U
Dibromochloromethane	ug/L	N	1	-	0.5U	0.5U	0.5U	1U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	0.5U	0.5U	0.5U	2U	-	0.5U	-	0.5U	-	-	0.5UJ	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	2U
Ethane	ug/L	N	NS	11.00n	-	-	-	-	14	-	10.00	-	10	10.00	-	10	8.20n	-	8.2	9.50n	-	-	7.70n	-	-	-	-
Ethene	ug/L	N	NS	3.00n	-	-	-	-	3.8	-	2.10	-	2.1	2.00	-	2	1.60n	-	1.6	3.30n	-	-	4.80n	-	-	-	-
Ethylbenzene	ug/L	N	700	-	0.5U	0.5U	0.5U	0.8U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.8U
Isopropylbenzene	ug/L	N	700	-	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	1U	1U	-	1U	1U	1U	1U
Methane	ug/L	N	NS	11000.00n	-	-	-	-	2800	-	5900.00	-	5900	6600.00	-	6600	6400.00n	-	6400	5500.00n	-	-	4400.00n	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	1U	1U	-	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	0.5U	0.5U	0.6J	-	1	-	1	-	-	1	-	-	1	-	-	0.8J	0.5U	-	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	1U	1U	-	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	1	2	2U	-	2U	-	2U	-	-	2U	-	-	2U	-	-	2U	2U	-	2U	1	0.8J	2U
Styrene	ug/L	N	100	-	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	1U	1U	-	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	0.5U	2	3	2J	-	2	-	2	-	-	2	-	-	1	-	-	2	1	-	1	3	2	0.8U
Toluene	ug/L	N	600	-	0.6J	0.6J	0.7J	0.7U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.6J	0.5U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	0.5U	0.5U	0.5U	0.8U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	0.5U	0.5U	0.5U	1U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	2	10	14	11	-	8	-	8	-	-	7	-	-	5	-	-	7	6	-	6	18	11	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	0.5U	0.5U	0.5U	2U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	8	66	81	12	-	14	-	13	-	-	13	-	-	10	-	-	14	16	-	14	21	38	1U
Xylene (total)	ug/L	N	1000	-	0.5U	0.8J	0.9J	0.8U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.8J	0.6J	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-370	MW-370	MW-370	MW-370	MW-370	MW-370	MW-370	MW-370	MW-370	MW-371	MW-371	MW-371	MW-371	MW-371	MW-371	MW-371	MW-371	MW-371	MW-371	MW-371	MW-371	MW-372	MW-372	MW-372
			Sample Date	01/19/2015	01/19/2015	01/19/2015	04/24/2015	07/08/2015	07/08/2015	10/09/2015	10/09/2015	11/08/2017	07/10/2013	07/10/2013	01/14/2015	01/14/2015	01/14/2015	04/27/2015	04/27/2015	07/07/2015	07/07/2015	10/12/2015	10/12/2015	11/10/2017	06/14/2013	06/14/2013	06/14/2013
			Field Sample ID	M370A2X	M370A2X	M370A2X	M370A3X	M370A4X	M370A4X	M370A5X	M370A5X	M370B2X	D0710135	M371A1X	M371A2X	M371A2X	M371A2X	M371A3X	M371A3X	M371A4X	M371A4X	M371A5X	M371A5X	M371B2X	D0614135	M372A1X	M372A1X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	48	47	-
1,1,1-Trichloroethane	ug/L	N	30	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-
1,1,2-Trichloroethane	ug/L	N	3	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	-	2U	-	2U	-	2U	2U	2U	2U	-	2U	-	-	2U	-	2U	-	2U	2U	2U	2U	-
1,1-Dichloroethane	ug/L	N	50	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	20	20	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	1UJ	-	1U	-	1U	-	1U	1UJ	1U	1U	-	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	-	2U	-	2U	-	2U	2U	2U	2U	-	2U	-	-	2U	-	2U	-	2U	2U	2U	2U	-
1,2-Dibromoethane	ug/L	N	0	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	-	1U	-	1U	-	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	-
1,2-Dichloroethane	ug/L	N	2	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-
1,2-Dichloropropane	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	-	1U	-	1U	-	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	-
1,4-Dichlorobenzene	ug/L	N	75	-	1U	-	1U	-	1U	-	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	-	3U	-	3U	-	3U	3U	4J	4J	-	3U	-	-	29	-	30	-	19	3U	3U	3U	-
2-Hexanone	ug/L	N	300	-	3U	-	3U	-	3U	-	3U	3U	3U	3U	-	3U	-	-	3U	-	3U	-	3U	3U	3U	3U	-
4-Methyl-2-pentanone	ug/L	N	100	-	3U	-	3U	-	3U	-	3U	3U	3U	3U	-	3U	-	-	3U	-	3U	-	3U	3U	3U	3U	-
Acetone	ug/L	N	6000	-	6U	-	6U	-	6U	-	6U	6U	43	43	-	6U	-	-	26	-	24	-	14J	19J	6U	6U	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	-	3	-	-	1	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	-
Bromodichloromethane	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-
Bromoform	ug/L	N	4	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-
Carbon Dioxide	ug/L	N	NS	-	33000	-	31000	-	68000	-	46000	93000	-	-	-	4000U	-	-	4000U	-	4000U	-	4000U	4000U	-	140000	-
Carbon disulfide	ug/L	N	700	-	1U	-	1U	-	1U	-	1U	1U	1U	1J	-	8	-	-	6	-	4J	-	3J	1J	1U	1U	-
Carbon Tetrachloride	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-
Chlorobenzene	ug/L	N	50	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	-
Chloroethane	ug/L	N	5	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-
Chloroform	ug/L	N	70	-	0.7J	-	0.5U	-	0.5U	-	0.5U	0.5U	1J	2J	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1J	1J	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	25	24	-
cis-1,3-Dichloropropene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-
Cyclohexane	ug/L	N	100	-	2U	-	2U	-	2U	-	2U	2U	2U	2U	-	2U	-	-	4J	-	2U	-	2U	2U	2U	2U	-
Dibromochloromethane	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	2U	2U	-	0.5UJ	-	-	0.5U	-	0.5U	-	0.5U	0.5U	2U	2U	-
Ethane	ug/L	N	NS	0.0070J	-	0.007J	-	0.0020Un	-	0.0059Jn	-	-	-	-	0.34	-	0.34	0.28n	-	0.24n	-	0.29n	-	-	-	-	1.6
Ethene	ug/L	N	NS	0.05	-	0.05	-	0.01Jn	-	0.27n	-	-	-	-	6.30	-	6.3	3.60n	-	2.20n	-	2.50n	-	-	-	-	2.1
Ethylbenzene	ug/L	N	700	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	-
Isopropylbenzene	ug/L	N	700	-	1U	-	1U	-	1U	-	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	-
Methane	ug/L	N	NS	1.50	-	1.5	-	0.66n	-	0.31Jn	-	-	-	-	2500.00	-	2500	1300.00n	-	2600.00n	-	3000.00n	-	-	-	-	1300
Methyl acetate	ug/L	N	7000	-	1U	-	1U	-	1U	-	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	-
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	-
Methylcyclohexane	ug/L	N	100	-	1U	-	1U	-	1U	-	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	-	2U	-	2U	-	2U	0.5U	4J	4J	-	2U	-	-	2U	-	2U	-	2U	0.5U	2U	2U	-
Styrene	ug/L	N	100	-	1U	-	1U	-	1U	-	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	-
Tetrachloroethene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	-
Toluene	ug/L	N	600	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.7U	0.7U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.7U	0.7U	-
trans-1,2-Dichloroethene	ug/L	N	100	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	3J	3J	-
trans-1,3-Dichloropropene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	12	13	-	3	-	-	0.9J	-	0.5J	-	0.5U	0.5U	160	150	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	2U	2U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	2U	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	32	31	-
Xylene (total)	ug/L	N	1000	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
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Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-372	MW-372	MW-372R	MW-372R	MW-372R	MW-372R	MW-372R	MW-372R	MW-372R	MW-372R	MW-372R	MW-372R	MW-372R	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376
			Sample Date	09/24/2013	11/09/2017	10/30/2014	10/30/2014	10/30/2014	01/15/2015	01/15/2015	01/15/2015	04/24/2015	07/07/2015	07/07/2015	10/12/2015	10/12/2015	01/15/2014	04/17/2014	07/17/2014	07/17/2014	11/19/2014	12/08/2014	04/14/2015	05/15/2015	09/01/2015	10/14/2015	11/03/2015
			Field Sample ID	M372A2	M372RB3X	M372RA1X	M372RA1X	M372RA1X	D0115155	M372RA3X	M372RA3X	M372RA4X	M372RA5X	M372RA5X	M372RA6X	M372RA6X	M376A1X	M376A2X	D0717141	M376A3X	M376A5X	M376A4X	M376A6X	M376A7X	M376A8X	M376A9X	M376B1X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	52	0.5U	-	2	-	12	12	-	16	-	9	-	5	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	18	0.5U	-	4	-	7	7	-	8	-	5	-	4	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	-	1U	-	1UJ	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	1U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ
Acetone	ug/L	N	6000	6U	6U	-	6U	-	6U	6U	-	6U	-	6U	-	6U	6U	6J	11J	10J	6U	6U	6U	6U	6U	6U	8J
Benzene	ug/L	N	1	0.7J	0.5U	-	0.5J	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	24	130	240	220	98	240	220	140	19	220	160
Bromodichloromethane	ug/L	N	1	1U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	1U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ
Carbon Dioxide	ug/L	N	NS	-	5300J	-	120000	-	-	100000	-	89000	-	13000	-	43000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.8U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	1U	0.5U	-	4	-	3	3	-	0.5U	-	0.5U	-	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ
Chloroform	ug/L	N	70	0.8U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	23	4	-	23	-	55	54	-	41	-	34	-	30	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	1U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	14	21U	19J	17J	15	45	13	9	2U	10	8
Dibromochloromethane	ug/L	N	1	1U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	5.90	-	5.9	-	-	3.9	-	1.90n	-	0.87n	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	16.00	-	16	-	-	8.8	-	3.00n	-	1.50n	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	3J	11	3	3	2	7	5	4	0.5U	4	3
Isopropylbenzene	ug/L	N	700	1U	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	2J	5	3J	2J	2J	6	3J	2J	1U	3J	2J
Methane	ug/L	N	NS	-	-	4600.00	-	4600	-	-	5500	-	1600.00n	-	930.00n	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	4J	9	3J	3J	4J	16	4J	2J	1U	4J	2J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	0.5U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.7U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	5J	17	18	15	11	29	18	10	1	14	10
trans-1,2-Dichloroethene	ug/L	N	100	3J	0.5U	-	2	-	2	2	-	2	-	1	-	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	0.5U	-	0.5U	-	0.5UJ	0.5UJ	-	0.5U	-	0.5U	-	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	160	1	-	48	-	150	140	-	200	-	150	-	69	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	37	0.5U	-	12	-	18	18	-	18	-	14	-	5	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	0.8U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	100	210	99	84	97	270	140	94	9	130	87
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-376	MW-376	MW-376	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379
			Sample Date	11/03/2016	03/21/2017	08/25/2017	01/15/2014	04/17/2014	07/17/2014	09/12/2014	11/19/2014	04/09/2015	05/13/2015	05/15/2015	09/01/2015	10/14/2015	11/03/2015	11/03/2016	03/21/2017	08/25/2017	01/15/2014	04/15/2014	07/11/2014	04/14/2015	06/16/2015	08/27/2015	10/29/2015
			Field Sample ID	M376B3X	M376B4X	M376B5X	M377A1X	M377A2X	M377A3X	M377A4X	M377A5X	M377A6X	M377A8X	M377A7X	M377A9X	M377B1X	M377B2X	M377B4X	M377B5X	M377B6X	M379A1X	M379A2X	M379A3X	M379A4X	M379A5X	M379A6X	M379A7X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2UJ	2U	20U	2U	2U	2U	20U	2U	10U	2U	2U	2U	2U	2U	2UJ	10U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	20U	2U	2U	2U	20U	2U	10U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5UJ	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	30U	3U	3U	3U	30U	4J	15U	3U	3U	3U	3U	3U	5J	15U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	3U	3U	30U	3U	3U	3U	30U	3U	15U	3U	3U	3U	3UJ	3U	3U	15U	3U	3U	3U	3U	3U	3UJ	3UJ
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	30U	3U	3U	3U	30U	3U	15U	3U	3U	3U	3UJ	3U	3U	15U	3U	3U	3U	3U	3U	3U	3UJ
Acetone	ug/L	N	6000	6U	6U	6U	60U	6J	8J	6U	60U	7J	30U	8J	6U	6U	9J	6U	12J	30U	6U	6U	6U	6U	6U	6U	6U
Benzene	ug/L	N	1	94	250	330	74	150	170	9	67	330	120	190	15	37	93	5	700	510	0.5U	3	0.5U	1	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5UJ	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ
Carbon Dioxide	ug/L	N	NS	1U	1UJ	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1UJ	5U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	0.5UJ	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	6	54	31	60	75J	100J	7	36J	110	41	62	2U	15	25	2U	86	55	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	20U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	2	11	9	17J	26	27	2	11	43	14	20	1	5	9	0.5U	44	16	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	2J	8	7	36J	45	44	5	26J	54	20J	30	4J	22	27	1J	44	30	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	3J	40J	13	40J	66	56	5J	17J	72	20J	35	2J	11	15	1U	33J	17J	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	20U	2U	2U	2U	20U	2U	10U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	9	25	36	29J	36	44	5	30	87	31	42	1	14	26	0.6J	120	57	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	20U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	87	280	370	64	100	100	6	50	200	52	82	5	37	66	2	250	140	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-379	MW-379	MW-379	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383
			Sample Date	11/09/2016	03/22/2017	08/24/2017	01/15/2014	04/15/2014	07/11/2014	04/14/2015	06/10/2015	06/10/2015	08/27/2015	10/29/2015	11/08/2016	03/22/2017	08/30/2017	04/15/2014	07/11/2014	04/09/2015	04/09/2015	06/16/2015	08/27/2015	10/29/2015	11/08/2016	03/22/2017	08/24/2017
			Field Sample ID	M379A9X	M379B1X	M379B2X	M380A1X	M380A2X	M380A3X	M380A4X	D0610151	M380A5X	M380A6X	M380A7X	M380A9X	M380B1X	M380B2X	M383A1X	M383A2X	D0409151	M383A3X	M383A4X	M383A5X	M383A6X	M383A8X	M383B9X	M383B1X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	9J	3U	3U	3U	3U	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3UJ	3UJ	3U	3U	3U	3U	6U	3U	3U	3U	3UJ	3UJ	3U	3U	3UJ
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	6U	3U	3U	3U	3U	3UJ	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	22	7J	6U	6U	6U	6U	16J	11J	10J	9J	7J	6U	6U	22	13J
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	7	5	4	3	2	2	0.5U	4	0.5U	4	1	1300	870	60	51	15	1	0.5U	0.5U	0.5U	0.7J
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U
Carbon Dioxide	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8J	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	2U	2U	61	38	15	10	2U	2U	2U	2U	2U	15	2U	4J	4U	3J	3J	2U	2U	2U	2U	2U	2J
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	46	35	25	20	13	12	0.5U	8	0.5U	16	0.9J	10	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	40	29	30	15	18	17	4J	10	1J	18	10	19	2U	5	3J	5J	1J	1J	1U	7	8
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	240	200	44	22	37	37	1U	19	9	19	19	40	49	48	55	6	1U	2J	1U	4J	180
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.8J	0.7J	0.7J	0.6J	0.6J	0.6J	0.5U	0.5U	0.5U	0.5J	0.5U	0.8J	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	6	4	4	4	3	3	1J	4	0.5U	3	1	14	10	3	3	3	0.5U	0.5U	0.5U	0.5U	0.5J
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-390	MW-390	MW-390	MW-390	MW-390	MW-390	MW-390	MW-390	MW-390	MW-401R	MW-401R	MW-401R	MW-401R	MW-404R	MW-404R	MW-404R	MW-404R	MW-416	MW-416	MW-416	MW-416	MW-416	MW-417	MW-417
			Sample Date	01/09/2014	04/17/2014	07/15/2014	02/12/2015	05/15/2015	08/27/2015	08/27/2015	10/28/2015	09/22/2017	11/15/2017	11/15/2017	03/05/2018	03/05/2018	04/26/2017	09/05/2017	11/30/2017	03/06/2018	05/19/2015	08/20/2015	10/28/2015	09/22/2017	12/05/2017	05/19/2015	08/20/2015
			Field Sample ID	M390A1X	M390A2X	M390A3X	M390A4X	M390A5X	D0827151	M390A6X	M390A7X	M390B2X	D1115178	M401RA5X	D0305188	M401RA6X	M404RA4X	M404RA5X	M404RA6X	M404RA7X	M416A1X	M416A2X	M416A3X	M416B3X	M416B4X	M417A1X	M417A2X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.6J	0.5U	0.5U	0.5J	0.5J	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	6	2	3	2	2	2	6
1,2-Dichloropropane	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	6J	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	3U	3U	3UJ	3U	3UJ	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	18J	10J	120	9J	6U	13J	6U	6U	10J	18J
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	360	380	250J	350J	280	360	50	25	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	2J	1J	1U	1U	1U	1J	1U
Carbon Tetrachloride	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	9	8	4J	7J	46	42	16	18	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	13	11	6J	11J	58	64	44	30	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5	6	5J	4J	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	9	7	4J	8J	28	27	9	9	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	0.5U	0.5U	2U	2U	2U	0.5U	0.5UJ	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	28	26	0.5U	0.5U	12	8	3	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	180	170	0.6J	0.5U	120	57	30	24	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-417	MW-417	MW-417	MW-418	MW-418	MW-418	MW-434	MW-434R	MW-434R	MW-434R	MW-434R	MW-434R	MW-435	MW-435	MW-435R	MW-435R	MW-435R	MW-435R	MW-435R	MW-435R	MW-436	MW-438	MW-438	MW-438
			Sample Date	10/28/2015	09/22/2017	12/05/2017	05/19/2015	08/18/2015	10/28/2015	10/06/2015	05/17/2017	08/21/2017	10/31/2017	02/05/2018	05/02/2018	10/06/2015	10/06/2015	05/01/2017	08/23/2017	10/31/2017	02/06/2018	02/06/2018	05/02/2018	10/08/2015	10/06/2015	10/30/2017	02/05/2018
			Field Sample ID	M417A3X	M417B3X	M417B4X	M418A1X	M418A2X	M418A3X	M434A1X	M434RA4X	M434RA5X	M434RA6X	M434RA7X	M434RA8X	D1006158A	M435A1X	M435RA3X	M435RA4X	M435RA5X	D0206188	M435RA6X	M435RA7X	M436A1X	M438A1X	M438A5X	M438A6X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5J	0.5J	0.5J	4	7	10	0.5U	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	6	7	6	14	22	20	0.5U	9	2	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1	0.5U	0.5U	0.5U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	46	17	15	22	19	5J	5J	9J	3J	3U	3U	3U	3U	3U	3U	23	3U	7J
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	9J	3U	3U
Acetone	ug/L	N	6000	13J	6U	6J	6U	9J	7J	6U	740	210	400	380	310	33	34	130	12J	64	6U	6U	14J	9J	84	84	6U	10J
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	2	1	2	23	8	3	2	3	8	82	74	0.8J	1	0.5U	0.5U	0.5U	0.5U	140	5	4	4	2
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.6J	0.5J	2J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	120	120	74	54	33	0.5U	0.5U	3	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	37	15	12	8	17	-	-	4J	6	1J	1U	1U	1U	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1J	1U	1U	1U	-	-	-	-	-	4J	5J	-	-	-	-	-	-	2J	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	13	5	13	7	7	0.5U	0.5U	0.7J	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	300	280	460	320	310	0.5U	0.5U	13	14	4	0.5U	0.5U	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	6	10	5	7	6	8	61	58	6	59	2U	2U	2U	2U	48	37	2U	3J
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.6J	0.9J	0.5U	0.5U	0.5U	3	100	92	3	2	0.5U	0.5U	0.5U	0.5U	44	0.7J	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	2J	1U	1U	1U	1U	1J	32	30	1J	2J	1U	1U	1U	1U	17	47	10	5J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	2J	9	6	8	7	9	37	38	8	110	1U	1U	1U	1U	26	200	3J	6
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	0.5U	0.5UJ	2U	2U	2U	2U	15	3J	4	2	2	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	2U	2U	0.5U	0.5U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3	2	1	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	1	1	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.6J	6	5	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	32	5	3	2
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1300	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	210	-	-	-	-	-	2500	2400	-	-	-	-	-	-	-	2600	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

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Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-439	MW-439	MW-439	MW-440	MW-440	MW-440	MW-440	MW-441	MW-441R	MW-441R	MW-441R	MW-441R	MW-441R	MW-441R	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
			Sample Date	10/07/2015	11/01/2017	02/06/2018	10/07/2015	11/02/2017	11/02/2017	02/06/2018	10/07/2015	06/09/2017	08/22/2017	10/30/2017	02/07/2018	05/03/2018	05/03/2018	06/29/1995	10/25/2002	02/12/2003	09/02/2003	06/14/2005	11/11/2005	06/13/2006	11/28/2006	06/12/2007	08/12/2008
			Field Sample ID	M439A1X	M439B2X	M439B3X	M440A1X	D1102178B	M440A5X	M440A6X	M441A1X	M441RA3X	M441RA4X	M441RA5X	M441RA6X	D0503188	M441RA7X	MW-0005-A	M005A2Y	M005A3Y	M005A4	M005A7X	M005A8X	M005A9X	M005B1X	M005B2X	M005B3X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U	2U	2U	2U	-	-
1,1-Dichloroethane	ug/L	N	50	0.5U	0.8J	0.5J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1UJ	1U	1U	1UJ	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U	2U	2U	2U	-	-
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	9.5U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	7	6	3	3	1	0.5U	5.0U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2	2	0.5U	1J	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	9.5U	1U	1U	1U	1U	1U	1U	1U	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	9.5U	1U	1U	1U	1U	1U	1U	1U	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	160	51	7J	7J	3U	3U	100U	3U	3U	3U	3U	3U	3U	3U	-	-
2-Hexanone	ug/L	N	300	10J	3U	3U	3U	3U	3U	3U	3U	5J	9J	3U	3U	3U	3U	-	3U	3U	3U	3U	3U	3U	3U	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	5J	3U	3U	3U	3U	3U	-	3U	3U	3U	3U	3U	3U	3U	-	-
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	12J	1100	580	71	18J	61	60	-	7J	12J	6J	6U	8J	6U	7J	-	-
Benzene	ug/L	N	1	0.5U	0.7J	5	2	0.5U	0.5U	0.5U	20	15	28	25	14	11	11	5.0U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	120	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	57	21	1J	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	37	21	9	4	4	4	-	1U	1U	1U	1U	1U	1U	1U	-	-
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5	3	2	1	0.5U	0.5U	5.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1700	0.9J	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	39	32	30	66	38	28	28	-	2U	2U	2U	2U	2U	2U	2U	-	-
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	-	2U	2U	2U	2U	2U	2U	2U	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	1	0.5U	0.5U	0.5U	0.5U	52	6	48	62	22	32	33	5.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	10	2J	14	20	7	8	8	-	1U	1U	1U	1U	1U	1U	1U	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2	0.9J	1	2	0.9J	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	27	30	30	67	35	27	27	-	1U	1U	1U	1U	1U	1U	1U	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	2U	6	10	4	3	2	2	-	2U	2U	2U	2U	2U	2U	2U	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5.0U	1U	1U	1U	1U	1U	1U	1U	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
Toluene	ug/L	N	600	0.5U	0.5U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5J	0.5U	1J	0.6J	0.5U	0.5U	0.5U	5.0U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	2U	2U	2U	2U	2U	2U	2U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7J	0.6J	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-
Xylene (total)	ug/L	N	1000	0.5U	0.5U	2	0.5U	0.5U	0.5U	0.5U	4	0.5U	18	10	4	5	5	5.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	80	-	-	55	-	-	-	1100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-509	MW-509	MW-512	MW-512	MW-517	MW-517	MW-517	MW-518	MW-518	MW-518	MW-519	MW-519	MW-519	MW-521	MW-521	P-6
			Sample Date	07/09/2009	06/29/2010	07/26/2011	02/28/2012	04/05/2013	05/30/2014	06/15/2016	05/03/2017	11/02/2017	02/07/2018	03/13/2017	05/05/2017	08/15/2017	11/14/2017	02/14/2018	08/16/2017	11/15/2017	02/16/2018	08/16/2017	11/16/2017	02/21/2018	10/31/2017	02/05/2018	10/22/2002
			Field Sample ID	M005B4X	M005B5X-100629	M005B6X	M005B7X	M005B8X	M005B9X	M005C1X	M005C2X	M509A5X	M509A6X	M512A1X	M512A2X	M517A1X	M517A2X	M517A3X	M518A1X	M518A2X	M518A3X	M519A1X	M519A2X	M519A3X	M521A1A	M521A2X	P006A1Y
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	200	200	130	36	26	41	0.5U	0.5U	0.5U	3U	0.5U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	2300	1400	1200	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	40	48	51	110	78	120	0.5U	2	3	3U	0.5U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	0.6J	0.5U	0.5U	0.5U	1U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	1U
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	3U	3U	4J	10	6U	3U	3U	3U	3U	3U	4J	7J	11	15U	13	3U
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	3U	3U	3U	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U	15U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	3U	3U	3U	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U	15U	3U	3U
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	6U	6U	6U	34	12U	6U	6U	6U	6U	6U	38	80	80	30U	34	6U
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	28	7	12	10	1U	0.5U	0.5U	5	4	4	0.5U	0.9J	0.5U	45	3600J	0.5U
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	1U
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	1U	3J	1U	5U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	1U
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.8U
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	1U
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	1U
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	2U	2U	54	41	4U	2U	2U	2U	2U	2U	2U	2U	2U	10U	150	2U
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.6J	0.6J	2	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	8	860	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	1J	2J	21	19	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U	49	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	26	140	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	1U	2J	100	94	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U	48	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	0.5U	0.5U	2U	2U	4U	0.6J	0.5U	2U	0.5U	0.5U	2U	0.5U	0.5U	3U	0.5U	2U
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	7	5	4	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	3	2	1U	0.5U	0.5U	43	0.9J	0.5U	0.5U	0.5U	0.5U	3U	910	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	17	16	11	4	2	3	0.5U	0.5U	0.5U	3U	0.5U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	1U	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	12	9	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	13	3600	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	1200	950	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P14TP1R	P14TP1R	PZ-0016	RW-11
			Sample Date	02/24/2003	07/29/2008	11/11/2008	06/03/2009	11/20/2009	04/29/2010	09/21/2010	06/23/2011	11/22/2011	03/28/2012	08/16/2012	02/27/2013	09/26/2013	03/28/2014	11/12/2014	06/26/2015	03/15/2016	09/01/2016	03/28/2017	09/06/2017	06/17/2016	06/07/2017	02/26/2004	06/15/2005
			Field Sample ID	P006A2Y	P006A3X	P006A4X	P006A5X	P006A6X	P006A7X	P006A8X	P006B1X	P006B2X	P006B3X	P006B4X	P006B5X	P006B6X	P006B8X	P006B9X	P006C1X	P006C2X	P006C3X	P006C4X	P006C5X	P14TP1RB1	P14TP1RB2	PZ16A2A	R011A1X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.9J	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	4J	3U	3U	3U
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	8J	6U	6U	6U	16J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	14J	17J	6U	14J
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	16	4	0.5U	0.5J
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Carbon Dioxide	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	11	11	2U	3J
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3	2	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	54	55	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1	2	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	180	230	1U	1J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	6	5	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	12	15	0.8U	3J
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21
			Sample Date	11/16/2005	06/27/2006	11/28/2006	05/31/2007	08/01/2008	06/24/2009	06/29/2010	06/03/2011	02/14/2012	04/09/2013	06/03/2014	06/02/2016	05/10/2017	06/07/2005	11/15/2005	06/23/2006	12/08/2006	05/23/2007	08/15/2008	07/16/2009	06/18/2010	07/28/2011	03/28/2012
			Field Sample ID	R011A2X	R011A3X	R011A4X	R011A5X	R011A6X	R011A7X	R011A8X-100629	R011A9X	R011B1X	R011B2X	R011B3X	R011B4	R011B5X	R021A3X	R021A4X	R021A5X	R021A6X	R021A7X	R021A8X	R021A9X	R021B1X-100618	R021B2X	R021B3X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-
Acetone	ug/L	N	6000	11J	8J	6U	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	7J	-	-	-	-	-	-
Benzene	ug/L	N	1	6	1J	0.5U	0.5U	0.8J	1J	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4J	9	3J	7	5	4J	2J	2J	3J	2J
Bromodichloromethane	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
Bromoform	ug/L	N	4	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
Carbon Dioxide	ug/L	N	NS	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	3J	4J	4J	-	-	-	-	-	-	-	-	-	-	16	68	15	58	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	9	13	7	9	11	14	10	6	14	3J
Isopropylbenzene	ug/L	N	700	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	6	11	6	17	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	1J	2J	2J	-	-	-	-	-	-	-	-	-	-	7	26	9	21	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	8	14	10	13	16	33	26	26	46	15
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	4J	4J	4J	4J	6	4J	3J	2J	3J	0.9J	2	0.5U	0.5U	140	300	140	330	250	320	280	200	330	120
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-21	RW-21	RW-21	RW-21	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-33	RW-33	RW-33	RW-33	RW-33
			Sample Date	04/11/2013	12/10/2015	06/02/2016	06/09/2017	06/16/2005	11/18/2005	06/13/2006	12/05/2006	06/15/2007	08/15/2008	06/26/2009	07/01/2010	08/04/2011	02/29/2012	03/19/2013	09/03/2014	12/30/2015	06/01/2016	05/04/2017	06/16/2005	11/18/2005	06/09/2006	12/05/2006	06/15/2007
			Field Sample ID	R021B4X	R021B6X	R021B7	R021B8	R031A1X	R031A2X	R031A3X	R031A4X	R031A5X	R031A6X	R031A7X	R031A8X-100701	R031A9X	R031B1X	R031B2X	R031B3X	R031B4X	R031B5	R031B6	R033A1X	R033A2X	R033A3X	R033A4X	R033A5X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	4U	2U	2U	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	4U	2U	2U	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	5J	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	6U	3U	3U	-
2-Hexanone	ug/L	N	300	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	6U	3U	3U	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	6U	3U	3U	-
Acetone	ug/L	N	6000	-	-	-	-	9J	6U	6U	6U	-	-	-	-	-	-	-	-	-	-	-	18J	14J	37	21	-
Benzene	ug/L	N	1	5J	0.9J	0.9J	1J	0.6J	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.6J	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	1J	1U	0.5U	0.5U	0.7J
Bromodichloromethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
Bromoform	ug/L	N	4	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1J	1U	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
Chlorobenzene	ug/L	N	50	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-
Chloroethane	ug/L	N	5	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
Chloroform	ug/L	N	70	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
Cyclohexane	ug/L	N	100	-	-	-	-	4J	8	7	10	-	-	-	-	-	-	-	-	-	-	-	28	18	14	24	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	4U	2U	2U	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	17	2	9	2	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	-	2J	9	4J	2J	-	-	-	-	-	-	-	-	-	-	-	9	7J	15	18	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.5U	1U	0.5U	0.5U	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	12	21	28	25	-	-	-	-	-	-	-	-	-	-	-	44	33	36	59	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	4U	2U	2U	-
Styrene	ug/L	N	100	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-
Toluene	ug/L	N	600	21	5	7	8	1J	0.7U	1J	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7J	0.7U	0.5U	0.5U	0.5U	0.5U	0.7U	1U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	4U	2U	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-
Xylene (total)	ug/L	N	1000	290	94	130	45	2J	0.8U	3J	3J	2J	3J	2J	2J	0.8J	2J	2J	0.5J	0.5U	0.5U	0.5U	2J	2U	1J	0.8U	1J
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34
			Sample Date	08/22/2008	06/16/2009	06/04/2010	06/30/2011	02/29/2012	03/19/2013	09/03/2014	12/30/2015	06/02/2016	05/04/2017	06/15/2005	11/18/2005	06/13/2006	06/13/2006	06/15/2007	08/13/2008	06/16/2009	06/04/2010	08/18/2011	02/21/2012	03/19/2013	09/03/2014	12/30/2015
			Field Sample ID	R033A6X	R033A7X	R033A8X-100604	R033A9X	R033B1X	R033B2X	R033B3X	R033B4X	R033B5X	R033B6X	R034A1X	R034A2X	R034A3X	R034A3X	R034A5X	R034A6X	R034A7X	R034A8X-100604	R034A9X	R034B1X	R034B2X	R034B3X	R034B4X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7J	0.5U	0.5U	0.5U	1J	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	0.5U	0.5U	0.5U	0.6J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-34	RW-34	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-41	RW-41	RW-41	RW-41	RW-41	RW-41	RW-41	RW-42	RW-42	RW-42
			Sample Date	06/01/2016	05/04/2017	06/23/2006	12/07/2006	06/15/2007	08/19/2008	07/09/2009	07/01/2010	06/30/2011	02/21/2012	06/27/2013	09/03/2014	06/16/2016	05/16/2017	08/16/2013	09/11/2014	12/10/2015	12/30/2015	06/01/2016	07/21/2016	05/04/2017	11/04/2002	09/29/2004	06/01/2005
			Field Sample ID	R034B5	R034B6	R035A1X	R035A2X	R035A3X	R035A4X	R035A5X	R035A6X-100701	R035A7X	R035A8X	R035A9X	R035B1X	R035B2	R035B3	R041A1	R041A2X	R041A3X	R041A4X	R041A5	R041A6X	R041A7	RW42A1	RW42A2X	R042A3
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	4J	7J	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	4J	3U	3U	3U
2-Hexanone	ug/L	N	300	-	-	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3J	3U	3U	3U
Acetone	ug/L	N	6000	-	-	20J	33	-	-	-	-	-	-	-	-	-	-	6U	6U	9J	6U	6U	6U	15J	15J	14J	6U
Benzene	ug/L	N	1	0.5U	0.5U	210	58	160	79	31	65	6	13	45	49	24	7	0.5U	2	0.5U	0.5U	0.9J	0.7J	0.5U	2J	0.5U	90
Bromodichloromethane	ug/L	N	1	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Bromoform	ug/L	N	4	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Chlorobenzene	ug/L	N	50	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Chloroform	ug/L	N	70	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Cyclohexane	ug/L	N	100	-	-	360	490	-	-	-	-	-	-	-	-	-	-	3J	2U	4J	3J	6	4J	5J	8	2U	16
Dibromochloromethane	ug/L	N	1	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	13	14	14	12	8	9	1J	3J	3J	5	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	7
Isopropylbenzene	ug/L	N	700	-	-	22	52	-	-	-	-	-	-	-	-	-	-	6	8	7	3J	5	6	3J	1U	1U	3J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12000	-	-	-	-	-	-	7200	-	-
Methyl acetate	ug/L	N	7000	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	0.5J	0.5J	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8J	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	300	340	-	-	-	-	-	-	-	-	-	-	29	200	64	60	120	67	93	5J	1U	5J
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	0.5U	18	30	26	14	24	19	3J	11	2J	10	2	2	0.7U	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.9J	0.7U	72
trans-1,2-Dichloroethene	ug/L	N	100	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	190	260	240	240	260	300	54	64	12	160	15	6	2J	4	4	3	3	3	2	5	0.8U	250
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	900	-	-	1000	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81
			Sample Date	11/16/2005	06/15/2006	12/07/2006	06/12/2007	08/19/2008	06/17/2009	06/15/2010	05/19/2011	02/28/2012	03/21/2013	08/12/2013	09/04/2014	12/04/2015	12/04/2015	06/10/2016	07/29/2016	05/11/2017	04/01/2005	09/13/2005	03/30/2006	09/28/2006	04/18/2007	04/02/2008	04/08/2009
			Field Sample ID	R042A4X	R042A5X	R042A6X	R042A7X	R042A8X	R042A9X	R042B1X-100615	R042B2X	R042B3X	R042B4X	R042B5	R042B6X	D1204158	R042B7X	R042B8X	R042B9X	R042C2X	R081A2X	R081A3X	R081A4X	R081A5X	R081A6X	R081A7X	R081A8X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	2U	-	2U	2U	2U	2U	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	-	1U	1U	1U	1U	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	2U	-	2U	2U	2U	2U	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	-	1U	1U	1U	1U	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	-	1U	1U	1U	1U	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	-	1U	1U	1U	1U	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	4J	8J	3U	-	-	-	-	-	-	-	-	-	3U	3U	-	3U	-	3U	3U	3U	3U	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	-	3UJ	-	3U	3U	3U	3U	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	-	3UJ	-	3U	3U	3U	3U	-	-	-
Acetone	ug/L	N	6000	9J	10J	6U	-	-	-	-	-	-	-	-	-	6U	6U	-	6U	-	6U	6U	6U	10J	-	-	-
Benzene	ug/L	N	1	200	220	92	3J	17	32	3J	0.5J	8	230	38J-	5	0.5U	0.5U	1	0.5U	83	1J	0.5U	0.5U	0.5U	0.6J	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	-	-	-
Bromoform	ug/L	N	4	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	-	-	-
Carbon Dioxide	ug/L	N	NS	1U	2J	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	-	1U	1U	1U	1U	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	-	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	-	-	-
Cyclohexane	ug/L	N	100	12	11	17	-	-	-	-	-	-	-	18J-	-	2J	2J	-	2U	-	2U	2U	2U	2U	-	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	2U	2U	2U	2U	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	3J	4J	5J	0.8J	4J	2J	0.8U	0.8U	0.8U	2J	3J-	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1J	1J	1J	-	-	-	-	-	-	-	1J-	-	1U	1U	-	1U	-	7	4J	7	8	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	7800J-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	-	1U	1U	1U	1U	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	-	-	-
Methylcyclohexane	ug/L	N	100	8	6	9	-	-	-	-	-	-	-	10J-	-	1U	1U	-	1U	-	1U	1U	1J	1J	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	2U	-	2U	2U	2U	2U	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	-	1U	1U	1U	1U	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	-	-	-
Toluene	ug/L	N	600	39	29	61	5J	51	22	5	6	15	23	31J-	34	1	2	2	0.5U	2	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	2U	2U	2U	2U	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	-	-	-
Xylene (total)	ug/L	N	1000	100	100	170	19	160	80	30	16	49	36	72J-	77	12	15	11	0.5U	4	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	98	120	-	20U	-	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82
			Sample Date	03/19/2010	05/12/2011	07/11/2013	09/25/2014	06/21/2016	09/19/2016	12/19/2016	06/08/2017	04/01/2005	09/13/2005	03/30/2006	09/28/2006	04/18/2007	04/02/2008	04/08/2009	04/01/2010	05/12/2011	06/14/2012	05/31/2013	09/25/2014	06/03/2016	09/21/2016	12/20/2016	06/08/2017
			Field Sample ID	R081A9X	R081B1X	R081B2X	R081B3X	R081B5X	R081B6X	R081B7X	R081B8X	R082A2X	R082A3X	R082A4X	R082A5X	R082A6X	R082A7X	R082A8X	R082A9X	R082B1X	R082B2X	R082B3X	R082B4X	R082B5	R082B6X	R082B7X	R082B8
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	0.5U	3UJ	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	0.5U	3UJ	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	0.5U	3UJ	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	2U	10UJ	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	10U	2U	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	1U	5UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5U	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	2U	10UJ	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	10U	2U	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	1U	5UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5U	1U	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	1U	5UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5U	1U	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	1U	5UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5U	1U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	3U	15UJ	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	15U	3U	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	3U	15UJ	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	15U	3U	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	3U	15UJ	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	15U	3U	-
Acetone	ug/L	N	6000	-	-	-	-	-	6U	30UJ	-	6U	6U	6U	9J	-	-	-	-	-	-	-	-	-	30U	6U	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
Bromoform	ug/L	N	4	-	-	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	1U	5UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5U	1U	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	0.5U	3UJ	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
Chloroethane	ug/L	N	5	-	-	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
Chloroform	ug/L	N	70	-	-	-	-	-	0.5U	3UJ	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	0.5U	3UJ	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	2U	10UJ	-	6	4J	4J	3J	-	-	-	-	-	-	-	-	-	10U	2U	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	0.5U	3UJ	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	3UJ	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	2J	5UJ	-	120	73	50	41	-	-	-	-	-	-	-	-	-	34	38	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	1U	5UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5U	1U	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	0.5U	3UJ	-	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	1U	5UJ	-	5	3J	4J	3J	-	-	-	-	-	-	-	-	-	5U	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	2U	10UJ	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	10U	2U	-
Styrene	ug/L	N	100	-	-	-	-	-	1U	5UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5U	1U	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	0.5U	3UJ	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	3UJ	0.5U	0.7U	2J	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7J	0.7J	3U	0.6J	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	0.5U	3UJ	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	0.5U	3UJ	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.5U	0.5U	1	3UJ	0.5U	1J	2J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5J	2	3U	2	1
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	140	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	180	700	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018
			Sample Date	11/06/2003	08/30/2004	04/05/2005	09/01/2005	04/04/2006	09/28/2006	04/13/2007	04/02/2008	04/08/2009	03/18/2010	04/07/2011	06/14/2012	05/29/2013	09/25/2014	06/03/2016	09/20/2016	12/20/2016	06/08/2017	09/11/2009	10/22/2009	08/12/2010	10/21/2010	09/16/2011	12/06/2011
			Field Sample ID	R083A2A	R083A3	R083A2X	R083A4X	R083A5X	R083A6X	R083A7X	R083A8X	R083A9X	R083B1X	R083B2X	R083B3X	R083B4X	R083B5X	R083B6X	R083B7X	R083B8X	R083B9X	TP2018A1X	TP2018A2X	TP2018A3X	TP2018A4X	TP2018A5X	TP2018A6X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.8U	2U	0.8U	2U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.8U	2U	0.8U	2U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	2U	1U	2U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.8U	2U	0.8U	2U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	2U	4U	2U	4U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	2U	1U	2U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	2U	1U	2U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	2U	4U	2U	4U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	2U	1U	2U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	2U	1U	2U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	2U	1U	2U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	2U	1U	2U	1U	1U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	2U	1U	2U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	2U	1U	2U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	-	17	15J	11	6U	30	14
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	-	3U	6U	3U	6U	5J	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	-	3U	6U	3U	6U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-	6U	6U	-	38	36J	39	12U	89	43
Benzene	ug/L	N	1	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U	25U	0.5U	10	8	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1200	970	1100	900	1000	1100
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	2U	1U	2U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	2U	1U	2U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	2U	1U	2U	1U	1U
Carbon Dioxide	ug/L	N	NS	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U	2U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	2U	1U	2U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.8U	2U	0.8U	2U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	2U	1U	2U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.8U	2U	0.8U	2U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	2U	1U	2U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.8U	2U	0.8U	2U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	2U	1U	2U	1U	1U
Cyclohexane	ug/L	N	100	3J	2U	2U	2U	4J	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	200	160	160	180	210	210
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	2U	1U	2U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	2U	4U	2U	4U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	40U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	320	390	270	480	300	380
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	59	40	37	42	44	39
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	2U	1U	2U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	1U	0.5U	1U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1J	1U	1U	1U	2J	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	150	110	120	110	140	130
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	2U	4U	2U	4U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	2U	1U	2U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.8U	2U	0.8U	2U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	35U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	6	5J	6	6J	7	7
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.8U	2U	0.8U	2U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	2U	1U	2U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	2U	1U	2U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	2U	4U	2U	4U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	2U	1U	2U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	40U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	590	860	660	1100	530	540
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20U	20U	-	-	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A1 Central Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018R	TP2-018R	TP2-018R	TP2-018R	TP2-018R
			Sample Date	06/29/2012	09/11/2012	08/13/2013	11/01/2013	02/11/2014	11/06/2014	07/02/2015	10/08/2015	05/03/2017	08/23/2017	11/01/2017	02/06/2018	05/02/2018
			Field Sample ID	TP2018X	TP2018A8X	TP2018B1X	TP2018B2X	TP2018B3X	TP2018B4X	TP2018B5X	TP2018B6X	TP2018RB8X	TP2018RB9X	TP2018RC1X	TP2018RC2X	TP2018RC3X
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	2U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
1,1,1-Trichloroethane	ug/L	N	30	2U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
1,1,2,2-Tetrachloroethane	ug/L	N	1	2U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
1,1,2-Trichloroethane	ug/L	N	3	2U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	4U	2U	2U	2U	2U	2U	2U	2U	4U	10U	2U	2U	20UJ
1,1-Dichloroethane	ug/L	N	50	2U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
1,2,4-Trichlorobenzene	ug/L	N	9	2U	1U	1U	1U	1U	1U	1U	1U	2U	5U	1U	1U	10UJ
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	4U	2U	2U	2U	2U	2U	2U	2U	4U	10U	2U	2U	20UJ
1,2-Dibromoethane	ug/L	N	0	2U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	2U	1U	1U	1U	1U	1U	1U	1U	2U	5U	1U	1U	10UJ
1,2-Dichloroethane	ug/L	N	2	2U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
1,2-Dichloropropane	ug/L	N	1	2U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
1,3-Dichlorobenzene	ug/L	N	600	2U	1U	1U	1U	1U	1U	1U	1U	2U	5U	1U	1U	10UJ
1,4-Dichlorobenzene	ug/L	N	75	2U	1U	1U	1U	1U	1U	1U	1U	2U	5U	1U	1U	10UJ
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	18J	23	15	12	8J	10J	8J	3U	55	40J	7J	14	30UJ
2-Hexanone	ug/L	N	300	6U	3U	3U	6J	3U	3U	3U	3U	6U	15U	3U	3U	30UJ
4-Methyl-2-pentanone	ug/L	N	100	6U	3U	3U	3U	3U	3U	3U	3U	6U	15U	3U	3U	30UJ
Acetone	ug/L	N	6000	47	54	37	30	23	24	18J	6U	880	1000	96	130	320J
Benzene	ug/L	N	1	1000	910	1100	840	1000	800	1100	960	86	100	32	80	78J
Bromodichloromethane	ug/L	N	1	2U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
Bromoform	ug/L	N	4	2U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
Bromomethane (Methyl bromide)	ug/L	N	10	2U	1U	1U	1U	1U	0.5U	0.5U	0.5U	9	4J	4	0.5U	5UJ
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	7J	12J	9	1J	10UJ
Carbon disulfide	ug/L	N	700	2U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	2U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
Chlorobenzene	ug/L	N	50	2U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
Chloroethane	ug/L	N	5	2U	1U	1U	1U	1U	0.5U	0.5U	0.5U	5	5	0.5U	4	5UJ
Chloroform	ug/L	N	70	2U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	2J	3U	2	0.7J	5UJ
Chloromethane (Methyl chloride)	ug/L	N	NS	2U	1U	1U	1U	1U	0.5U	0.5U	0.5U	110	48	98	1	5UJ
cis-1,2-Dichloroethene	ug/L	N	70	2U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
cis-1,3-Dichloropropene	ug/L	N	1	2U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
Cyclohexane	ug/L	N	100	110	210	190	170	200	180	200	190	64	62	50	58	33J
Dibromochloromethane	ug/L	N	1	2U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	4U	2U	2U	2U	2U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	330	260	320	170	310	120	460	240	51	30	16	32	28J
Isopropylbenzene	ug/L	N	700	30	35	53	34	49	35	53	42	22	15J	8	11	12J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	2U	1U	1U	1U	1U	1U	1U	1U	2U	5U	1U	1U	10UJ
Methyl-t-butyl ether	ug/L	N	70	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
Methylcyclohexane	ug/L	N	100	45	160	160	130	150	140	160	120	46	50	73	36	23J
Methylene chloride (Dichloromethane)	ug/L	N	3	4U	2U	2U	2U	2U	2U	2U	2U	4U	15J	5	3	8J
Styrene	ug/L	N	100	2U	1U	1U	1U	1U	1U	1U	1U	2U	5U	1U	1U	10UJ
Tetrachloroethene	ug/L	N	1	2U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
Toluene	ug/L	N	600	6J	6	8	5J	7	5	10	6	1U	3U	0.5U	1	5UJ
trans-1,2-Dichloroethene	ug/L	N	100	2U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
trans-1,3-Dichloropropene	ug/L	N	1	2U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
Trichloroethene (Trichloroethylene)	ug/L	N	1	2U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	4U	2U	2U	2U	2U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
Vinyl chloride (Chloroethene)	ug/L	N	1	2U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5UJ
Xylene (total)	ug/L	N	1000	410	480	510	330	460	180	530	270	35	22	11	18	14J
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	6700	-	-	-	-	-
TPH by NWTPH-Gx waters	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MP-01R	MP-01R	MP-02R	MP-02R	MP-03R	MP-03R	MP-04RR	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043
			Sample Date	10/19/2017	01/09/2018	10/18/2017	01/09/2018	10/19/2017	01/09/2018	10/18/2017	11/12/1999	02/09/2000	11/16/2000	01/29/2002	08/02/2002	08/14/2002	10/01/2002	01/22/2003	11/11/2003	08/10/2004	03/15/2005	08/30/2005	03/09/2006	08/24/2006	03/15/2007	03/04/2008	08/26/2008
			Field Sample ID	MP01RC2X	MP01RC3X	MP02RC2X	MP02RC3X	MP03RC2	MP03RC3X	MP04RRC3X	M043A1	M043A2	M043A3	M043A5	M043A6	M043A6T	M043A7Y	M043A8X	M043B1	MW043B2	M043B3X	M043B4X	M043B5X	M043B6X	M043B7X	M043B8X	M043B9X
			SDG	CQ829	CQ935	CQ825	CQ935	CQ819	CQ935	CQ825	94446	00473	B2465	269900	295754	297195	RFE24	RFE58	RFE92	RFF18	RFF43	957459	981013	1003078	1029582	1080011	1107202
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	4UJ	2U	2U	2U	10UJ	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	2UJ	1U	1U	1U	5UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	4UJ	2U	2U	2U	10UJ	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	0.52U	0.52U	1U	1.00U	2.00U	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	2UJ	1U	1U	1U	5UJ	10U	10U	4U	10.0U	10.0U	10.0U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	2.0U	2.0U	-	1.00U	2.00U	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	2UJ	1J	1U	1U	5UJ	10U	10U	10U	10.0U	10.0U	10.0U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	18J	17	1U	1U	5UJ	10U	10U	10U	10.0U	10.0U	10.0U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	6J	6UJ	3U	3U	3U	15UJ	10U	10U	20U	2.00U	50.0U	50.0U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	6UJ	3U	3U	3U	15UJ	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	6UJ	3U	3U	3U	15UJ	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	3U
Acetone	ug/L	N	6000	6U	20	12UJ	6U	6U	6U	30UJ	-	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	-	-	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	580	270	44J	8	15	2	3J	1.0U	1.0U	2U	1.00U	2.0U	2.0U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
Bromoform	ug/L	N	4	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
Carbon disulfide	ug/L	N	700	1U	1U	2UJ	1U	1U	1U	5UJ	5.0U	5.0U	10U	1.00U	2.00U	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	1UJ	0.5U	0.5UJ	0.5U	3UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
Chlorobenzene	ug/L	N	50	2	1	28J	29	0.6J	0.5U	3UJ	4.0U	4.0U	8U	1.00U	2.00U	2.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U
Chloroethane	ug/L	N	5	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
Chloroform	ug/L	N	70	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	5.0U	5.0U	10U	1.00U	2.00U	2.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
Cyclohexane	ug/L	N	100	13	14	4UJ	2U	2U	2U	10UJ	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	170	55	1UJ	0.5U	0.5U	0.5U	3UJ	5.0U	5.0U	10U	1.00U	2.0U	2.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	10	4J	2J	1U	1U	1U	5UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	2UJ	1U	1U	1U	5UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	0.5U
Methylcyclohexane	ug/L	N	100	5J	3J	2UJ	1U	1U	2J	5UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	0.5U	2	1UJ	0.5U	0.5U	1	3UJ	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U
Styrene	ug/L	N	100	1U	1U	2UJ	1U	1U	1U	5UJ	5.0U	5.0U	10U	1.00U	2.00U	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U
Toluene	ug/L	N	600	20	8	1UJ	0.5U	0.5U	0.5U	3UJ	5.0U	5.0U	10U	1.00U	0.700	2.0U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	1UJ	0.5U	0.5U	0.5U	3UJ	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U
Xylene (total)	ug/L	N	1000	88	28	1UJ	0.5U	0.5U	0.5U	3UJ	5.0U	5.0U	10U	1.0U	2.0U	2.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	1700	2100	440	150	96	210	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051
			Sample Date	02/20/2009	10/06/2009	03/23/2010	08/27/2010	08/27/2010	03/25/2011	09/20/2011	05/01/2012	08/28/2012	06/25/2013	10/02/2013	06/17/2014	11/05/2014	07/10/2015	09/12/2017	02/22/2018	11/25/2003	08/25/2004	04/12/2005	09/13/2005	03/23/2006	09/20/2006	03/30/2007	09/21/2007
			Field Sample ID	M043C1X	M043C2X	M043C3X	D0827101	M043C4X	M043C5X	M043C6X	M043C7X	M043C8X	M043C9X	M043D1X	M043D2X	M043D3X	M043D4X	M043D8X	M043D9X	M051A2	M051A3	M051A4X	M051A5X	M051A6X	M051A7X	M051A8X	M051A9X
			SDG	1133129	1165120	RFS35	RFS65	RFS65	RFT02	RFT70	RFU50	RFV32	RFB18	CS020	CS113	CS181	CS259	CS601	CS651	RFE93	RFF21	RFF48	959069	982888	1006518	1031765	1057469
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	-	-
Acetone	ug/L	N	6000	6U	6U	6U	17J	18J	25	6U	6U	6U	6U	8J	6U	6U	6U	6U	6U	6U	6U	8J	6U	6U	6U	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10	9	46	21	18	350	26	11
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	1U	1U	1U	1U	1U	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	17	7	21	42	32	94	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5UJ	2U	2U	2U	2U	2U	2U	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	0.8U	2J	17	2J	71	2J	2J
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	6	1U	5	37	5J	30	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	0.5U	2J	0.9J	1J	1J	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5J	3J	7	29	19	37	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
Toluene	ug/L	N	600	0.7U	0.7J	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	2J	0.7U	2J	3J	2J	17	1J	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	0.8U	3J	8	0.8U	17	3J	1J
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073
			Sample Date	10/11/2007	03/11/2008	08/28/2008	02/27/2009	09/29/2009	04/06/2010	08/17/2010	05/19/2011	09/27/2011	05/08/2012	07/03/2013	09/22/2005	11/17/2005	01/12/2006	07/11/2006	10/24/2006	12/18/2006	02/20/2007	04/11/2007	07/12/2007	10/11/2007	01/22/2008	08/28/2008	10/15/2008
			Field Sample ID	M051B1	M051B2X	M051B3X	M051B4X	M051B5X	M051B6X	M051B7X	M051B8X	M051B9X	M051C1X	M051C2X	M073A1X	M073A2X	M073A3	M073A4	M073A5	M073A6	M073A7	M073A8X	M073A9	M073B1	M073B2	M073B3X	M073B4
			SDG	1060617	1081108	1107601	1134114	1163942	RFS37	RFS64	RFT23	RFT73	RFU54	RFB29	960339	967951	974193	996874	1011503	1018856	1026191	1033234	1046717	1060617	1074539	1107601	1115235
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	6J	3U	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	3J	3U	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	3U	3U	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	-	-	-	22	6U	-	-	-	-	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	7	4J	0.8J	0.8J	5J	7	0.6J	3J	13	12	43	7	6	6	0.7J	0.8J	2J	6	1J	7	21	1J	0.5U	7
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	10	13	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	2J	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	0.8U	4J	0.8J	1J	99	140	110	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	28	44	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	15	21	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	1J	0.7U	0.7U	0.7U	1J	0.7U	0.7U	2J	4J	4J	2J	2J	2J	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	7	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	1J	0.8U	0.8U	360	340	200	16	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2J
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090
			Sample Date	01/14/2009	05/08/2009	08/24/2009	11/24/2009	10/22/2010	09/22/2011	05/08/2012	11/25/2015	05/20/2016	06/14/2017	03/12/2003	05/15/2003	11/19/2003	08/26/2004	03/03/2005	08/23/2005	03/21/2006	09/26/2006	03/30/2007	09/18/2007	04/08/2008	09/23/2008	05/11/2009	09/01/2009
			Field Sample ID	M073B5	M073B6	M073B7	M073B8	M073B9X	M073C1X	M073C2X	M073C3X	M073C4	M073C5	M090A1Y	M090A2	M090A4	M090A5	M090A6X	M090A7X	M090A8X	M090A9X	M090B1X	M090B2X	M090B3X	M090B4X	M090B5X	M090B6
			SDG	1128343	1144083	1159245	1172692	RFS74	RFT71	RFU54	CS320	CS404	CS572	RFE67	RFE74	RFE93	RFF21	RFF41	956523	982474	1007507	1031765	1056766	1085453	1111596	1144240	1160143
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	40U	8U	4U	8U	8U	8U	4U	4U	8U	4U	8U	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	40U	8U	4U	8U	8U	8U	4U	4U	8U	4U	8U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	40U	8U	4U	8U	8U	8U	4U	4U	8U	4U	8U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	2U	2U	100U	20U	10U	20U	20U	20U	10U	10U	20U	10U	20U	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	1U	1J	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	2U	2U	100U	20U	10U	20U	20U	20U	10U	10U	20U	10U	20U	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	12	3U	150U	30U	15U	30U	30U	30U	20J	15U	30U	20J	30U	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	9J	8J	150U	30U	15U	30U	30U	30U	15U	15U	30U	15U	30U	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	3U	3U	150U	30U	15U	30U	30U	30U	15U	15U	30U	15U	30U	-
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	-	-	21	27	300U	60U	30U	60U	60U	77J	140	76J	120J	93J	100J	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3600	6300	10000	11000	2500	12000	12000	13000	9200	8900	5900	11000	12000	2700
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	40U	8U	4U	8U	8U	8U	4U	4U	8U	4U	8U	-
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	40U	8U	4U	8U	8U	8U	4U	4U	8U	4U	8U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	40U	8U	4U	8U	8U	8U	4U	4U	8U	4U	8U	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	420	440	640	510	420	520	570	500	510	420	240	490	400	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	-	-	2U	2U	100U	20U	10U	20U	20U	20U	10U	10U	20U	10U	20U	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	830	960	1100	1100	700	1200	560	630	700	750	270	300	80	60
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	46	51	50U	43J	25	44J	37J	36J	35	35	21J	38	20J	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	25U	5U	3U	5U	5U	5U	3U	3U	5U	3U	5U	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	250	260	270	220	170	210	260	210	200	170	81	170	230	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	2U	2U	100U	20U	10U	20U	20U	20U	10U	10U	20U	10U	20U	-
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	40U	8U	4U	8U	8U	8U	4U	4U	8U	4U	8U	-
Toluene	ug/L	N	600	0.7U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	350	440	270	140	18J	160	100	110	60	85	38J	76	51	4J
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	40U	8U	4U	8U	8U	8U	4U	4U	8U	4U	8U	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	-	-	2U	2U	100U	20U	10U	20U	20U	20U	10U	10U	20U	10U	20U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	50U	10U	5U	10U	10U	10U	5U	5U	10U	5U	10U	-
Xylene (total)	ug/L	N	1000	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	2300	2700	3000	2400	1300	2100	960	1000	1000	1100	430	420	1100	490
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10
			Sample Date	12/03/2009	04/08/2010	07/13/2010	10/05/2010	02/16/2011	05/12/2011	08/10/2011	12/18/2012	12/18/2012	11/26/2013	09/16/2014	11/21/2017	02/01/2018	10/10/2002	01/27/2003	07/23/2003	10/22/2003	08/19/2004	03/29/2005	08/23/2005	03/21/2006	09/12/2006	03/23/2007	03/18/2008
			Field Sample ID	M090B7	M090B8	M090C1X-100713	M090C2	M090C4X	M090C5	M090C6X	D1218128	M090C8	M090C9X	M090D1X	M090D5X	M090D6X	M010A1Y	M010A2Y	M010A3	M010A4	M010A5	M010A6	M010A7	M010A8	M010A9	M010B1	M010B2X
			SDG	1173658	GWC54	RFS55	RFS70	RFS89	RFT20	RFT55	RFX24	RFX24	CS048	CS156	CQ898	CQ960	RFE28	RFE61	RFE83	RFE90	RFF19	RFF46	956523	982474	1005262	1030794	1082191
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	0.8U	-	0.8U	-	0.8U	0.8U	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	0.8U	-	0.8U	-	0.8U	0.8U	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	1U	-	1U	-	1U	1U	1U	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	0.8U	-	0.8U	-	0.8U	0.8U	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	2U	-	2U	-	2U	2U	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	1U	-	1U	-	1U	1U	1U	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	1U	-	1U	-	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	2U	-	2U	-	2U	2U	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	1U	-	1U	-	1U	1U	1U	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	1U	-	1U	-	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	1U	-	1U	-	1U	1U	1U	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	1U	-	1U	-	1U	1U	1U	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	1U	-	1U	-	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	1U	-	1U	-	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	3U	-	6J	-	3U	3U	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	3U	-	3U	-	3U	3U	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	3U	-	3U	-	3U	3U	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-
Acetone	ug/L	N	6000	-	-	6U	-	8J	-	17J	6U	6U	-	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1000	11	55	6	2J	21	14	3J	0.9J	1J	0.5U	3	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	1U	-	1U	-	1U	1U	1U	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Bromoform	ug/L	N	4	-	-	1U	-	1U	-	1U	1U	1U	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	1U	-	1U	-	1U	1U	1U	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Carbon disulfide	ug/L	N	700	-	-	1U	-	1U	-	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	1U	-	1U	-	1U	1U	1U	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Chlorobenzene	ug/L	N	50	-	-	0.8U	-	0.8U	-	0.8U	0.8U	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
Chloroethane	ug/L	N	5	-	-	1U	-	1U	-	1U	1U	1U	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Chloroform	ug/L	N	70	-	-	0.8U	-	0.8U	-	0.8U	0.8U	0.8U	-	-	0.5U	0.5U	1J	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	1U	-	1U	-	1U	1U	1U	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	0.8U	-	0.8U	-	0.8U	0.8U	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	1U	-	1U	-	1U	1U	1U	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Cyclohexane	ug/L	N	100	-	-	2J	-	2U	-	10	14	13	-	-	9	4J	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-
Dibromochloromethane	ug/L	N	1	-	-	1U	-	1U	-	1U	1U	1U	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	2U	-	2U	-	2U	2U	2U	-	-	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	9J	0.8J	9	2J	0.8U	49	41	5J	14J	2J	3	1	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	2J	-	5	-	5J	5J	2J	-	-	5J	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	1U	-	1U	-	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-
Methylcyclohexane	ug/L	N	100	-	-	2J	-	3J	-	3J	5	3J	-	-	4J	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	2U	-	2U	-	2U	2U	2U	-	-	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-
Styrene	ug/L	N	100	-	-	1U	-	1U	-	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Tetrachloroethene	ug/L	N	1	-	-	0.8U	-	0.8U	-	0.8U	0.8U	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
Toluene	ug/L	N	600	1U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.6J	0.8J	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	0.8U	-	0.8U	-	0.8U	0.8U	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	1U	-	1U	-	1U	1U	1U	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	1U	-	1U	-	1U	1U	1U	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	2U	-	2U	-	2U	2U	2U	-	-	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	1U	-	1U	-	1U	1U	1U	-	-	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Xylene (total)	ug/L	N	1000	9J	0.8U	0.8U	0.8U	0.8U	6	3J	1J	0.8U	0.8U	0.5J	1	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	770	550	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-121R	MW-121R	MW-121R	MW-121R	MW-121R	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128
			Sample Date	02/27/2009	04/01/2010	04/29/2011	04/29/2011	03/28/2013	03/28/2013	01/14/2014	08/20/2014	09/17/2014	10/21/2014	01/20/2015	10/21/2015	10/26/2017	04/27/2017	04/27/2017	08/31/2017	11/30/2017	03/06/2018	10/17/2002	01/30/2003	09/18/2003	09/29/2004	06/01/2005	11/11/2005
			Field Sample ID	M010B3X	M010B4X	D0429111	M010B5X	M010B6	M010B6	M010B7X	M010B8X	M010B9X	M010C1X	M010C2X	M010C3X	M010C8X	D0427178	M121RC1X	M121RC2X	M121RC3X	M121RC4X	M128A1X	M128A2Y	M128A3	M128A4X	M128A5	M128A6X
			SDG	1134114	RFS36	RFT15	RFT15	RFX24	RFY40	CP259	CP475	CP508	CP552	CP649	CP897	CQ846	CQ610	CQ610	CQ751	CQ910	CQ994	RFE33	RFE62	RFE86	RFF26	RFF57	967213
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	4U	4UJ	40U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	2U	2UJ	20U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	4U	4UJ	40U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	2U	2UJ	20U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	2U	2UJ	20U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	2U	2UJ	20U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	6U	6UJ	60U	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	6U	6UJ	60U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	6U	6UJ	60U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	-	-	-	-	6U	6U	6U	6UJ	6U	6U	6U	6U	6U	6J	6U	12U	12UJ	120U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	2	3	3	3J	10U	0.7J	0.5U	0.5U	73	6	0.9J
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	2U	2UJ	20U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	-	-	-	-	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	-	-	-	-	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	-	-	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	4U	4UJ	40U	33	5	16	18	18	20
Dibromochloromethane	ug/L	N	1	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	2U	2U	2U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	1J	2J	1J	1J	10U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	2U	2UJ	20U	3J	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	2U	2UJ	20U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	4J	0.5U	0.5U	0.7J	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1J	1J	2U	2UJ	20U	28	7	16	11	2J	6
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	0.5U	2U	2U	4U	1UJ	10U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	2U	2UJ	20U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	-	-	-	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	1J	2J	2J	1J	10U	0.7U	0.7U	0.7U	6	1J	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	2U	2U	2U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	2	2	2	1J	10U	0.8U	0.8U	0.8U	0.8U	6	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	20U	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	20U	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130
			Sample Date	06/15/2006	11/09/2006	06/12/2007	08/20/2008	06/11/2009	06/15/2010	08/02/2011	03/28/2012	03/21/2013	03/21/2013	09/09/2014	04/17/2015	12/03/2015	06/09/2016	07/20/2016	05/16/2017	12/02/2002	04/09/2003	02/24/2004	06/04/2004	09/22/2005	06/15/2006	06/20/2007
			Field Sample ID	M128A7X	M128A8X	M128A9X	M128B1X	M128B2X	M128B3X-100615	M128B4X	M128B5X	D0321131	M128B6X	M128B7X	M128B8X	M128B9X	M128C1X	M128C2X	M128C3	M130A1X	M130A2Y	M130A3	040604MW-130	M130A4X	M130A5X	M130A6X
			SDG	993798	1013690	1042260	1106372	1148815	RFS47	RFT49	RFU32	RFY20	RFY20	CS153	CS222	CP942	CS413	CQ190	CS560	RFE43	RFE70	RFE97	PHC06	960339	993798	1043537
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	-	1UJ	-	1U	1U	1U	1U	1U	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U	-
Acetone	ug/L	N	6000	6U	6U	-	-	-	-	-	-	-	-	-	-	7J	-	6U	-	6U	6U	6U	6U	6U	6U	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	-
Bromoform	ug/L	N	4	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	-
Carbon disulfide	ug/L	N	700	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
Chloroethane	ug/L	N	5	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	-
Chloroform	ug/L	N	70	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	-
Cyclohexane	ug/L	N	100	23	12	-	-	-	-	-	-	-	-	-	-	2J	-	2U	-	2U	2U	2U	2U	2U	2U	-
Dibromochloromethane	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	2U	2U	2U	2U	2U	2U	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	2J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Isopropylbenzene	ug/L	N	700	1U	1J	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Methylcyclohexane	ug/L	N	100	2J	4J	-	-	-	-	-	-	-	-	-	-	7	-	1J	-	1U	1U	1U	1U	1U	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	-
Styrene	ug/L	N	100	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	2U	2U	2U	2U	2U	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	-
Xylene (total)	ug/L	N	1000	12	5J	5	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	280	-	100	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131
			Sample Date	05/16/2008	09/11/2009	09/11/2009	08/03/2010	08/18/2011	06/26/2012	08/27/2013	08/22/2014	06/15/2016	05/03/2017	10/07/2002	12/03/2002	12/03/2002	01/27/2003	04/30/2003	06/20/2003	11/07/2003	08/12/2004	11/30/2004	03/08/2005	09/15/2005	03/14/2006	09/12/2006	04/18/2007
			Field Sample ID	M130A7X	D0911091	M130A8X	M130A9X	M130B1X	M130B2X	M130B3X	M130B4X	M130B5X	M130B6X	M131A1Y	M131A1	M131A1	M131A2Y	M131A2	M131A3	M131A4A	MW131A5	M131A6X	M131A7X	M131A8X	M131A9X	M131B1X	M131B2X
			SDG	1091830	1161510	1161510	RFS62	RFT60	RFU92	RFB98	CS145	CS416	CS553	RFE26	RFE26	RFE43	RFE61		RFE77	RFE92	RFF20	RFF34	RFF41	959422	981574	1005262	1034314
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	0.8	0.8U	-	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	-	-	0.8	0.8U	-	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	0.8	0.8U	-	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	2	2U	-	2U	2	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	2	2U	-	2U	2	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	3	3J	-	5J	5	4J	4J	6	3J	5	4J	2J	3J	3J
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	24	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	3	3U	-	8J	4	7J	6J	3U	8J	3U	6J	3U	5J	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	3	3U	-	3U	3	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	3	3U	-	3U	3	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	-	-	16	-	6J	23	12	20J	12J	7J	23	6U	25	6J	18J	13J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	180	-	490	870	1100	630	530	820	200	810	120	280	350	280
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	0.8	0.8U	-	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	0.8	0.8U	-	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	0.8	0.8U	-	2J	3	1J	0.9J	1J	0.8U	2J	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	20	20	-	150	150	46	40	95	25	130	27	23	24	64
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	-	-	2	2U	-	2U	2	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1	1J	-	73	140	66	42	110	3J	88	2J	11	7	12
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	1	1U	-	3J	6	3J	2J	7	1U	3J	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	0.5	0.5U	-	0.5U	0.5	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	10	10	-	49	54	21	14	36	10	29	9	7	6	13
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	2	2U	-	2U	2	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1J	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	0.8	0.8U	-	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.8	0.8J	-	23	40	20	12	28	3J	31	4J	5	10	6
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	0.8	0.8U	-	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1	1U	-	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	-	-	2	2U	-	2U	2	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1	1U	-	2J	4	2J	1U	1U	1U	2J	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	36	36	-	180	270	150	150	280	85	270	100	67	93	100	
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131R	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132
			Sample Date	03/06/2008	02/23/2009	04/06/2010	04/29/2011	06/06/2012	04/30/2013	11/08/2013	11/08/2013	01/08/2014	06/10/2014	03/17/2015	06/29/2015	07/20/2015	10/05/2015	10/30/2015	12/06/2017	11/14/2002	02/24/2003	08/30/2004	04/05/2005	09/15/2005	03/21/2006	09/08/2006	04/11/2007
			Field Sample ID	M131B3X	M131B4X	M131B5X	M131B6X	M131B7X	M131B8X	D1108138	M131B9X	M131C1X	M131C2X	M131C3	M131C4	M131C5X	M131C6	M131C7X	M131RD8X	M132A1X	M132A2X	M132A4	M132A5X	M132A6X	M132A7X	M132A8X	M132A9X
			SDG	1080472	1133329	RFS37	RFT15	RFU79	RFZ22	CP193	CP193	CP251	CS110	CP669	CP761	CP786	CP859	CP916	CQ916	RFE38	RFE65	RFF22	RFF47	959422	982474	1004877	1033234
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	5U	-	3U	0.5U	0.8U	0.8U	8U	2U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	5U	-	3U	0.5U	0.8U	0.8U	8U	2U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	5U	-	3U	0.5U	1U	1U	10U	2U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	5U	-	3U	0.5U	0.8U	0.8U	8U	2U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	20U	-	10U	2U	2U	2U	20U	4U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	5U	-	3U	0.5U	1U	1U	10U	2U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	10U	-	5U	1U	1U	1U	10U	2U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	20U	-	10U	2U	2U	2U	20U	4U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	5U	-	3U	0.5U	1U	1U	10U	2U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	4J	3J	3J	3J	5J	4J	4J	4J	2J	2J	-	-	10U	-	5U	1U	3J	1U	10U	2U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	5U	-	3U	0.5U	1U	1U	10U	2U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	5U	-	3U	0.5U	1U	1U	10U	2U	1U	1U	1U	2J
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	10U	-	5U	1U	23	5	10U	2J	1J	3J	2J	3J
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	10U	-	5U	1U	250	63	64	27	14	33	16	32
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	6J	6J	9J	3U	3U	3U	5J	-	-	30U	-	19J	3U	3U	8J	30U	6J	4J	4J	6J	7J
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	30U	-	15U	3U	3U	3J	30U	6U	6J	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	30U	-	15U	3U	3U	3U	30U	6U	3U	3U	3U	3U
Acetone	ug/L	N	6000	10J	22	6U	13J	18J	13J	6U	6U	6U	17J	-	-	60U	-	130	6U	6U	6U	60U	30J	13J	8J	9J	22
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	310	300	360	370	370	380	210	220	220	270	-	-	140	-	45	2	700	900	720	920	1300	640	1000	570
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	5U	-	3U	0.5U	1U	1J	10U	2U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	5U	-	3U	0.5U	1U	1U	10U	2U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	5U	-	3U	0.5U	1U	1U	10U	2U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	10U	-	5U	1U	1U	1U	10U	2U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	5U	-	3U	0.5U	1U	1U	10U	2U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	5U	-	3U	0.5U	580	210	170	32	57	71	47	46
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	5U	-	3U	0.5U	1U	1U	10U	2U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	5U	-	3U	0.5U	0.8U	0.8U	8U	2U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	5U	-	3U	0.5U	1U	1U	10U	2U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	5U	-	3U	0.5U	0.8U	0.8U	8U	2U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	5U	-	3U	0.5U	1U	1U	10U	2U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	50	76	93	56	70	66	26	29	7	21	-	-	20U	-	10U	2U	150	250	190	160	300	280	260	290
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	5U	-	3U	0.5U	1U	1U	10U	2U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	-	-	5U	-	3U	0.5U	2U	2U	20U	4U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	40	15	60	19	25	17	6J	8J	2J	9	-	-	5U	-	3U	0.5U	170	240	91	98	390	190	220	140
Isopropylbenzene	ug/L	N	700	3J	1J	2J	2J	2J	1J	1J	1J	1U	1U	-	-	10U	-	5U	1U	18	14	10U	7J	24	16	16	14
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	3900	4500	-	4000J-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	10U	-	5U	1U	1U	1U	10U	2U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	5U	-	3U	0.5U	1J	0.5J	5U	1U	1J	0.7J	0.7J	1J
Methylcyclohexane	ug/L	N	100	10	27	23	19	22	19	10	12	2J	2J	-	-	10U	-	5U	1U	100	210	120	53	170	270	240	250
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	20U	-	10U	0.5U	2U	2U	20U	4U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	10U	-	5U	1U	1U	1U	10U	2U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	5U	-	3U	0.5U	0.8U	0.8U	8U	2U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	8	5	17	6	8	9	8	10	1J	5	-	-	5U	-	3U	0.5U	58	70	25J	38	150	55	84	44
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	5U	-	3U	0.5U	0.8U	0.8U	8U	2U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	5U	-	3U	0.5U	1U	1U	10U	2U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	5U	-	3U	0.5U	1U	1U	10U	2U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	-	-	5U	-	3U	0.5U	2U	2U	20U	4U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	5U	-	3U	0.5U	1U	1U	10U	2U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	120	93	130	71	94	70	55	60	11	25	-	-	20	-	6	0.7J	790	1200	480	520	2500	1100	1300	780
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29J	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	830J+	820J+	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132
			Sample Date	03/25/2008	09/19/2008	04/08/2009	10/08/2009	04/01/2010	08/19/2010	05/17/2011	04/23/2012	11/14/2012	11/14/2012	05/10/2013	05/10/2013	07/03/2013	07/03/2013	10/18/2013	10/18/2013	12/12/2013	12/12/2013	04/03/2014	04/03/2014	07/11/2014	07/11/2014	09/11/2014	09/11/2014
			Field Sample ID	M132B1X	M132B5X	M132B6X	M132B7X	M132B8X	M132B9X	M132C1X	M132C2X	D1114127	M132C3X	D0510138	M132C5X	D0703138	M132C6X	D1018138	M132C7X	D1212138	M132C8X	D0403148	M132C9X	D0711148	M132D1X	D0911148B	M132D2X
			SDG	1083150	1111172	1139653	1165848	RFS36	RFS64	RFT22	RFU48	RFX05	RFX05	RFZ38	RFZ38	CP033	CP033	CP155	CP155	CP236	CP236	CP298	CP298	CP411	CP411	CP502	CP502
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	2U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	40U	40U	40U	40U	8U	8U	8U	8U	0.5U	0.5U	3U	3U	3U	3U
1,1,1-Trichloroethane	ug/L	N	30	2U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	40U	40U	40U	40U	8U	8U	8U	8U	0.5U	0.5U	3U	3U	3U	3U
1,1,2,2-Tetrachloroethane	ug/L	N	1	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10UJ	10UJ	10U	10UJ	0.5U	0.5U	3U	3U	3U	3U
1,1,2-Trichloroethane	ug/L	N	3	2U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	40U	40U	40U	40U	8U	8U	8U	8U	0.5U	0.5U	3U	3U	3U	3U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	4U	2U	2U	2U	2U	20U	2U	2U	2U	2U	100U	100U	100U	100U	20U	20U	20U	20U	2U	2U	10U	10U	10U	10U
1,1-Dichloroethane	ug/L	N	50	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10U	10U	10U	10U	0.5U	0.5U	3U	3U	3U	3U
1,2,4-Trichlorobenzene	ug/L	N	9	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10U	10U	10U	10U	1U	1U	5U	5U	5U	5U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	4U	2U	2U	2U	2U	20U	2U	2U	2U	2U	100U	100U	100U	100U	20U	20U	20U	20U	2U	2U	10U	10U	10U	10U
1,2-Dibromoethane	ug/L	N	0	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10U	10U	10U	10U	0.5U	0.5U	3U	3U	3U	3U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10U	10U	10U	10U	1U	1U	5U	5U	5U	5U
1,2-Dichloroethane	ug/L	N	2	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10U	10U	10U	10U	0.5U	0.5U	3UJ	3UJ	3U	3U
1,2-Dichloropropane	ug/L	N	1	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10U	10U	10U	10U	0.5U	0.5U	3U	3U	3U	3U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	2J	3J	3J	3J	2J	10U	1J	2J	2J	3J	50U	50U	50U	50U	10U	10U	10U	10U	1U	1U	5U	5J	5U	5U
1,4-Dichlorobenzene	ug/L	N	75	22	30	26	31	19	12J	13	17	20	24	50U	50U	50U	50U	24J	23J	19J	25J	6	6	40	44	28	28
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	13J	11	14	10	3U	30U	21	9J	7J	6J	150U	150U	150U	150U	150	140	47J	65J	16J	12J	17J	15U	15U	15U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	6U	3U	3U	3U	3U	30U	3U	3U	3U	3U	150U	150U	150U	150U	30U	30U	30U	30U	3U	3U	15U	15U	15U	15U
4-Methyl-2-pentanone	ug/L	N	100	6U	3U	3U	14	3U	30U	3U	3U	3U	3U	150U	150U	150U	150U	30UJ	30UJ	30U	30U	4J	4J	15U	15U	15U	15U
Acetone	ug/L	N	6000	24J	16J	19J	17J	6U	60U	31	17J	9J	6J	300U	300U	300U	300U	380	390	170J	220J	36J	27J	40J	40J	30U	34J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	590	630	560	670	490	600	570	590	430	360	640	610	820J	520J	160	150	220J	170J	490	510	300	260	240	230
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10U	10U	10U	10U	0.5U	0.5U	3U	3U	3U	3U
Bromoform	ug/L	N	4	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10U	10U	10U	10U	0.5U	0.5U	3U	3U	3U	3U
Bromomethane (Methyl bromide)	ug/L	N	10	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50UJ	50UJ	10U	10U	10U	10U	0.5U	0.5U	3U	3U	3U	3U
Carbon disulfide	ug/L	N	700	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	12J	10J	10U	10U	2J	2J	5U	5U	5U	5U
Carbon Tetrachloride	ug/L	N	1	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10U	10U	10U	10U	0.5U	0.5U	3UJ	3UJ	3U	3U
Chlorobenzene	ug/L	N	50	71	60	60	49	41	33J	26	40	50J	66J	40U	40U	40U	40U	30J	29J	27J	36J	7	8	37	45	36	35
Chloroethane	ug/L	N	5	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50UJ	50UJ	10U	10U	10U	10U	4	5	3U	3U	3U	3U
Chloroform	ug/L	N	70	2U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	40U	40U	40U	40U	8U	8U	8U	92J	0.5U	0.5U	3U	3U	3U	3U
Chloromethane (Methyl chloride)	ug/L	N	NS	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10U	10U	10U	10U	0.5U	0.5U	3U	3U	3U	3U
cis-1,2-Dichloroethene	ug/L	N	70	2U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	40U	40U	40U	40U	8U	8U	8U	8U	0.5U	0.5U	3U	3U	3U	3U
cis-1,3-Dichloropropene	ug/L	N	1	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10U	10U	10U	10U	0.5U	0.5U	3U	3U	3U	3U
Cyclohexane	ug/L	N	100	220	190	290	190	250	160	170	200	210	200	150J	150J	170J	130J	21J	20U	46J	20U	110	140	45	36	28	27
Dibromochloromethane	ug/L	N	1	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10U	10U	10U	10U	0.5U	0.5U	3U	3U	3U	3U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	4U	2U	2U	2U	2U	20U	2U	2U	2U	2U	100U	100U	100U	100U	20U	20U	20U	20U	0.5U	0.5U	3U	3U	3U	3U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	120	140	93	120	72	150	69	62	64	61	40U	47J	71J	40U	12J	11J	24J	14J	71	77	42	33	30	29
Isopropylbenzene	ug/L	N	700	13	15	11	14	12	12J	10	13	11	12	50U	50U	50U	50U	10U	10U	10U	10U	11	12	11J	8J	5J	5J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10U	10U	10U	10U	1U	1U	5U	5U	5U	5U
Methyl-t-butyl ether	ug/L	N	70	1U	0.8J	0.5U	0.5U	0.5U	5U	0.6J	0.5U	0.7J	0.7J	25U	25U	25U	25U	5U	5U	5U	5U	0.6J	0.5J	3U	3U	3U	3U
Methylcyclohexane	ug/L	N	100	140	210	230	160	190	120	130	180	150	160	100J	130J	160J	110J	22J	21J	40J	22J	86J	120J	38J	29J	18J	19J
Methylene chloride (Dichloromethane)	ug/L	N	3	4U	2U	2U	2U	2U	20U	2U	2U	2U	2U	100U	100U	100U	100U	20U	20U	20U	20U	2U	2U	10U	10U	10U	10U
Styrene	ug/L	N	100	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10U	10U	10U	10U	1U	1U	5U	5U	5U	5U
Tetrachloroethene	ug/L	N	1	2U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	40U	40U	40U	40U	8U	8U	8U	8U	0.5U	0.5U	3J	3U	3U	3U
Toluene	ug/L	N	600	45	71	45	65	42	80	60	86	160	150	58J	110J	160J	55J	16J	14J	14J	14J	9	9	13	14	11	11
trans-1,2-Dichloroethene	ug/L	N	100	2U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	40U	40U	40U	40U	8U	8U	8U	8U	0.5U	0.5U	3U	3U	3U	3U
trans-1,3-Dichloropropene	ug/L	N	1	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10U	10U	10U	10U	0.5U	0.5U	3U	3U	3U	3U
Trichloroethene (Trichloroethylene)	ug/L	N	1	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10U	10U	10U	10U	0.5U	0.5U	3U	3U	3U	3U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	4U	2U	2U	2U	2U	20U	2U	2U	2U	2U	100U	100U	100U	100U	20U	20U	20U	20U	0.5U	0.5U	3U	3U	3U	3U
Vinyl chloride (Chloroethene)	ug/L	N	1	2U	1U	1U	1U	1U	10U	1U	1U	1U	1U	50U	50U	50U	50U	10U	10U	10U	10U	0.5U	0.5J	3U	3U	3U	3U
Xylene (total)	ug/L	N	1000	810	600	390	450	330	740	270	210	210	200	64J	110J	230J	73J	35J	25J	74J	42J	250	270	120J	93J	77	75
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	3100	3600J	3200	3800	6000	6700	3900J	2300J	1800	2900	3500	3800	1300J	2000J	1900	2200

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132R	MW-132R	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133
			Sample Date	01/13/2015	01/15/2015	04/21/2015	04/21/2015	07/22/2015	07/22/2015	10/18/2017	01/09/2018	10/17/2002	10/07/2004	06/01/2005	11/15/2005	06/15/2006	11/21/2006	06/12/2007	12/12/2007	08/15/2008	07/08/2009	07/09/2010	08/04/2011	04/24/2012	04/04/2013	09/10/2014	04/17/2015
			Field Sample ID	D0115158B	M132D3X	D0421158	M132D4X	D0722158	M132D5X	M132RE3X	M132RE4X	M133A1X	M133A2X	M133A3	M133A4X	M133A5X	M133A6X	M133A7X	M133A8X	M133A9X	M133B1X	M133B2X	M133B3X	M133B4X	M133B5X	M133B6X	M133B7X
			SDG	CP643	CP643	CP689	CP689	CP790	CP790	CQ825	CQ935	RFE33	RFF28	RFF57	967531	993798	1015254	1042260	1069481	1105739	1152663	RFS54	RFT50	RFU46	RFY53	CS155	CS222
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	-	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2UJ	2UJ	4UJ	2U	2U	2U	2U	2U	2U	10U	2U	2U	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1UJ	1UJ	2UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2UJ	2UJ	4UJ	2U	2U	2U	2U	2U	2U	10U	2U	2U	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1UJ	1UJ	2UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	6	7	1U	1U	2J-	2J-	2UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	53	59	7	7	13J	13J-	2UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	10J	8J	29	31	23J-	28J-	6UJ	3U	3U	3U	3U	3U	3U	15U	3U	3U	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3UJ	3UJ	6UJ	3U	3U	3U	3U	3U	3U	15U	3U	3U	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3UJ	3UJ	6UJ	3U	3U	3U	3U	3U	3U	15U	3U	3U	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	37	31	54	54	45J-	60J-	12UJ	6U	6U	20	8J	6U	8J	30U	13J	6U	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	220	220	600	600	360J-	480J-	6J	9	2J	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1J	1J	1U	1U	2J-	2J-	2UJ	1U	1U	1U	1U	1J	1U	5U	1U	1U	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	65	74	8	8	13J-	13J-	1UJ	0.7J	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	0.5U	2	2	1J-	1J-	1UJ	0.5U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	2	2	0.6J	0.5J	0.9J-	0.8J-	1UJ	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	32	32	87	100	63J-	32J-	4UJ	2U	12	7	8	3J	7	10U	5	4J	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	2U	2U	2U	2U	2U	10U	2U	2U	-	-	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	33	31	130	130	87J-	67J-	1UJ	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	7	7	14	15	13J-	10J-	2UJ	1U	3J	1J	1U	1U	2J	5U	3J	1U	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1UJ	1UJ	2UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.7J	0.7J	0.5U	0.5U	0.5J-	0.6J-	1UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	26	26	45	52	36J-	19J-	2UJ	1U	5	4J	5J	2J	4J	5U	4J	4J	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2UJ	2UJ	1UJ	0.5U	2U	2U	2U	2U	2U	10U	2U	2U	-	-	-	-	-	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1UJ	1UJ	2UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	-	-	-	-	-	-	-	-
Toluene	ug/L	N	600	13	14	17	17	14J-	11J-	1UJ	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	4U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	1UJ	0.5U	2U	2U	2U	2U	2U	10U	2U	2U	-	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5J	0.6J	0.5U	0.5U	0.8J-	0.5UJ	1UJ	0.5U	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	90	89	180	200	140J-	110J-	1UJ	0.5U	0.9J	0.8U	0.8U	0.8U	0.8U	4U	1J	0.8U	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	0.5U	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	92	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	2100	2100	4200	3500	1900J-	2500J-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-133	MW-133	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14
			Sample Date	06/09/2016	05/10/2017	10/18/1995	12/18/1995	02/22/1996	04/17/1996	10/10/2002	01/29/2003	11/12/2003	08/16/2004	03/23/2005	08/16/2005	03/23/2006	09/08/2006	03/21/2007	03/11/2008	02/27/2009	03/11/2010	03/29/2011	05/02/2012	06/25/2013	09/23/2014	07/08/2015	01/07/2016
			Field Sample ID	M133B8X	M133B9X	MW-0014A-1	MW-0014-A2	MW-0014-AY	MW-0014-AX	M014A1Y	M014A2Y	M014A3	M014A4	M014A5	M014A6	M014A7	M014A8	M014A9	M014B1X	M014B2X	M014B3X	M014B4X	M014B5X	M014B6X	M014B7X	M014B8X	M014B9X
			SDG	CS413	CS557	54377	55315	60667	61449	RFE28	RFE61	RFE92	RFF19	RFF44	955618	982888	1004877	1030299	1081108	1134114	RFS33	RFT03	RFU51	RFB18	CS159	CS258	CS337
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	5.00U	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	10.00U	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	2.00U	5U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	10.00U	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	10.00U	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	10.00U	10U	10U	10U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	10.00U	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	-	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	1.00U	5U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	5.00U	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	-	-	4.00U	5U	4U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	-	-	5.00U	5U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	5.00U	5U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	N	100	-	-	5.00U	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
Toluene	ug/L	N	600	0.5U	0.5U	5.00U	5U	5U	5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.5U	0.5U	5.00U	5U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-14	MW-14	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-142	MW-142	MW-142
			Sample Date	02/17/2017	08/25/2017	12/03/2002	03/06/2003	07/24/2003	10/24/2003	08/25/2004	04/12/2005	09/15/2005	04/06/2006	09/13/2006	04/23/2007	03/18/2008	03/11/2009	03/04/2010	04/08/2011	06/05/2012	07/02/2013	09/17/2014	09/17/2014	02/21/2018	10/08/2002	01/23/2003	07/21/2003
			Field Sample ID	M014C4X	M014C6X	M141A1X	M141A2Y	M141A3	M141A4A	M141A5	M141A6X	M141A7X	M141A8X	M141A9	M141B1X	M141B2X	M141B3X	M141B4X	M141B5X	M141B6X	M141B7X	D0917141	M141B8X	M141C3X	M142A1Y	M142A2Y	M142A3
			SDG	CS516	CS594	RFE43	RFE66	RFE83	RFE90	RFF21	RFF48	959422	984700	1005725	1035058	1082191	1135630	RFS32	RFT06	RFU78	RFB27	CS157	CS157	CS650	RFE26	RFE58	RFE83
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	1U	1U	1U	1U	2J	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U
Acetone	ug/L	N	6000	-	-	6U	6U	14J	6U	6U	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-	-	15J	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	29	9	13	1J	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Bromoform	ug/L	N	4	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Chlorobenzene	ug/L	N	50	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Chloroform	ug/L	N	70	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Cyclohexane	ug/L	N	100	-	-	2U	2U	2U	2U	2U	2U	2U	3J	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U
Dibromochloromethane	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	5	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.9J	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	1U	1U	1U	1U	1U	1U	1U	2J	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U
Styrene	ug/L	N	100	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	0.5U	4J	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	9	1J	2J	0.8U	0.8U	0.8U	0.8U	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143
			Sample Date	10/30/2003	08/17/2004	04/07/2005	09/15/2005	03/28/2006	09/12/2006	03/30/2007	03/18/2008	03/11/2009	03/04/2010	04/28/2011	06/05/2012	07/16/2013	11/14/2014	02/21/2018	10/08/2002	01/23/2003	07/23/2003	11/04/2003	08/19/2004	03/29/2005	08/25/2005	03/15/2006	09/14/2006
			Field Sample ID	M142A4	M142A5	M142A6	M142A7	M142A8	M142A9	M142B1	M142B2X	M142B3X	M142B4X	M142B5X	M142B6X	M142B7X	M142B8X	M142C3X	M143A1Y	M143A2Y	M143A3	M143A4	M143A5	M143A6	M143A7	M143A8	M143A9
			SDG	RFE91	RFF19	RFF47	959422	983381	1005262	1031765	1082191	1135630	RFS32	RFT14	RFU78	RFB41	CS186	CS650	RFE26	RFE58	RFE83	RFE91	RFF19	RFF46	956931	981802	1005725
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	8J	6U	7J	6U	-	-	-	-	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144
			Sample Date	03/28/2007	03/18/2008	05/18/2009	03/05/2010	04/28/2011	06/05/2012	07/02/2013	09/17/2014	10/02/2015	02/21/2018	02/21/2018	12/02/2002	02/14/2003	07/10/2003	10/29/2003	08/30/2004	04/05/2005	09/07/2005	04/04/2006	09/13/2006	04/20/2007	09/13/2007	03/27/2008	09/11/2008
			Field Sample ID	M143B1	M143B2X	M143B3X	M143B4X	M143B5X	M143B6X	M143B7X	M143B8X	M143B9X	D0221181	M143C3X	M144A1X	M144A2Y	M144A3	M144A4	M144A5	M144A6X	M144A7X	M144A8X	M144A9	M144B1X	M144B2X	M144B3X	M144B4X
			SDG	1031345	1082191	1145283	RFS32	RFT14	RFU78	RFB27	CS157	CS294	CS650	CS650	RFE43	RFE64	RFE81	RFE91	RFF22	RFF47	958318	984270	1005725	1034667	1056329	1083600	1109693
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	10U	10U
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	10U	10U
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	15U	15U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	15U	15U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	15U	15U
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	6U	60U	100	6U	6U	17J	6U	29	30U	90J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5J	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	3J	2U	2U	2U	10U	10U
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	10U	10U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	4J	0.7J	3J	0.5U	3U	3U
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	10U	10U
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	4U	4U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	10U	10U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145
			Sample Date	03/18/2009	10/08/2009	03/18/2010	08/19/2010	04/07/2011	06/08/2012	05/31/2013	09/24/2014	09/24/2014	05/27/2016	09/14/2016	12/27/2016	05/31/2017	10/03/2002	01/22/2003	06/18/2003	11/12/2003	08/12/2004	03/15/2005	08/30/2005	03/09/2006	08/24/2006	03/15/2007	03/04/2008
			Field Sample ID	M144B5X	M144B6X	M144B7X	M144B8X	M144B9X	M144C1X	M144C2X	D0924141	M144C3X	M144C4X	M144C5X	M144C6X	M144C7X	M145A1X	M145A2X	M145A	M145A3	M145A4	M145A5X	M145A6X	M145A7X	M145A8X	M145A9X	M145B1X
			SDG	1136756	1165848	RFS34	RFS64	RFT05	RFU81	RFZ73	CS160	CS160	CS407	CQ293	CQ497	CS564	RFE24	RFE58	RFE77	RFE92	RFF19	RFF43	957459	981013	1003078	1029582	1080011
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	20U	2U	-	-	-	-	-	20UJ	40U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	20U	2U	-	-	-	-	-	20UJ	40U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3J	4J	30U	3U	-	-	-	-	-	30UJ	60U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	30U	3U	-	-	-	-	-	30UJ	60U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	30U	3U	-	-	-	-	-	30UJ	60U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-
Acetone	ug/L	N	6000	13J	16J	19J	60U	14J	-	-	-	-	-	60UJ	120U	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	25U	5UJ	10U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Bromoform	ug/L	N	4	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Cyclohexane	ug/L	N	100	2U	2U	2U	20U	2U	-	-	-	-	-	20UJ	40U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	20U	2U	-	-	-	-	-	5UJ	10U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.5U	0.5U	25U	5UJ	10U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5J	0.5U	0.5U	5U	0.5U	-	-	-	-	-	5UJ	10U	-	4J	4J	3J	3J	3J	3J	3J	4J	5	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	20U	2U	-	-	-	-	-	20UJ	40U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-
Styrene	ug/L	N	100	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.5U	0.5U	25U	5UJ	10U	1U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	20U	2U	-	-	-	-	-	5UJ	10U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.5U	0.5U	25U	5UJ	10U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	26J	200UJ	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146
			Sample Date	02/20/2009	03/17/2010	03/29/2011	05/03/2012	06/25/2013	09/23/2014	02/15/2018	10/07/2002	01/23/2003	06/20/2003	11/11/2003	08/11/2004	03/15/2005	08/30/2005	03/09/2006	09/06/2006	03/23/2007	03/06/2008	02/20/2009	03/24/2010	03/22/2011	05/01/2012	06/27/2013	02/15/2018
			Field Sample ID	M145B2X	M145B3X	M145B4X	M145B5X	M145B6X	M145B7X	M145C2X	M146A1Y	M146A2X	M146A3	M146A4	MW146A5	M146A6X	M146A7X	M146A8X	M146A9X	M146B1X	M146B2X	M146B3X	M146B4X	M146B5X	M146B6X	M146B7X	M146C3X
			SDG	1133129	RFS33	RFT03	RFU52	RFB18	CS159	CS647	RFE26	RFE58	RFE77	RFE92	RFF19	RFF43	957459	981013	1004466	1030794	1080472	1133129	RFS35	RFT01	RFU50	RFB21	CS647
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.5U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	26	9J	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	8J	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3UJ
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	25	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	58	16J	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	-	-	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	100	48	0.5U	0.5U	2J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	7	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.5U
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	95	48	2U	2U	6	2U	2U	2U	2U	-	-	-	-	-	-	-	2U
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	20	5	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	11	5	1U	1U	2J	1U	1U	1U	1U	-	-	-	-	-	-	-	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1UJ
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	0.5U	0.6J	0.5U	0.5U	0.7J	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	65	27	1U	1U	2J	1U	1U	1U	1U	-	-	-	-	-	-	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	0.5U
Styrene	ug/L	N	100	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.5U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	11	4J	0.7U	0.7U	1J	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	51	76	0.8U	0.8U	0.8J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20U
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149
			Sample Date	10/02/2002	01/22/2003	06/17/2003	11/03/2003	08/12/2004	03/17/2005	09/01/2005	03/09/2006	09/06/2006	03/21/2007	03/06/2008	02/23/2009	04/09/2009	03/31/2010	03/22/2011	05/03/2012	06/25/2013	02/22/2018	10/15/2002	01/29/2003	10/29/2003	08/30/2004	04/05/2005	09/07/2005
			Field Sample ID	M148A1Y	M148A2Y	M148A3	M148A4A	M148A5	M148A6X	M148A7X	M148A8X	M148A9X	M148B1X	M148B2X	M148B3X	M148B4X	M148B5X	M148B6X	M148B7X	M148B8X	M148C7X	M149A1Y	M149A2Y	M149A4	M149A5	M149A6X	M149A7X
			SDG	RFE24	RFE58	RFE77	RFE91	RFF19	RFF44	957808	981013	1004466	1030299	1080472	1133329	1139911	RFS36	RFT01	RFU52	RFB18	CS651	RFE31	RFE61	RFE91	RFF22	RFF47	958318
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	2U	20U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	2U	20U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	3U	30U	8J	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	3U	30U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	3U	30U	3U	3U
Acetone	ug/L	N	6000	8J	6U	6U	6U	6U	12J	6U	6U	6U	-	-	-	-	-	-	-	-	-	6U	6U	6U	60U	21	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	9	8	5	5U	200	0.7J
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	63	37	28	20U	81	13
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	2U	20U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	1J	0.8U	0.8U	8U	2J	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	14	7	5J	10U	3J	3J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	2J	2J	2J	5U	3J	2J
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	65	36	25	14J	22	14
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	2U	20U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.9J	0.7U	0.7U	7U	12	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	2U	20U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	10U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	3J	2J	2J	8U	14	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-150	MW-150	MW-150	MW-150	MW-151	MW-151	MW-151	MW-151
			Sample Date	03/30/2006	09/13/2006	04/13/2007	09/18/2007	03/27/2008	09/30/2008	03/06/2009	09/24/2009	02/18/2010	08/19/2010	04/07/2011	04/07/2011	06/14/2012	05/31/2013	09/24/2014	02/22/2018	10/08/2002	10/15/2002	01/27/2003	11/17/2003	10/08/2002	01/27/2003	10/20/2003	09/08/2004
			Field Sample ID	M149A8X	M149A9	M149B1X	M149B2X	M149B3X	M149B4X	M149B5X	M149B6X	M149B7X	M149B8X	D0407111	M149B9X	M149C1X	M149C2X	M149C3X	M149C9	M150A1Y	M150A2Y	M150A3X	M150A4	M151A1Y	M151A2	M151A4	M151A5
			SDG	983761	1005725	1033684	1056766	1083600	1112628	1135061	1163395	1183032	RFS64	RFT05	RFT05	RFU83	RFZ73	CS160	CS651	RFE26	RFE31	RFE61	RFE93	RFE26	RFE61	RFE90	RFF23
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	10U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	10U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	10U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	10U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	10U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	5J	4J	3U	30U	3U	3U	3U	3U	3U	9J	9J	5J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U
Acetone	ug/L	N	6000	6U	13J	16J	6U	60U	6U	6U	6U	6U	6U	16J	24	10J	6U	6U	8J	6U	6U	6U	6U	9J	6U	6U	60U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	10	36	28	2J	5U	3J	16	1J	4J	0.5U	27	26	16	2J	2	3	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	10U
Bromoform	ug/L	N	4	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	10U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	10U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	10U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	10U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	10U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	10U
Cyclohexane	ug/L	N	100	38	29	52	10	20U	10	54	12	16	5	25	25	28	4J	9	6	2U	2U	2U	2U	2U	2U	2U	20U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	10U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5UJ	2U	2U	2U	2U	2U	2U	2U	20U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	1J	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U
Isopropylbenzene	ug/L	N	700	6	4J	8	3J	10U	2J	6	4J	3J	1J	17	15	21	2J	3J	8	1U	1U	1U	1U	1U	1U	1U	10U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
Methyl-t-butyl ether	ug/L	N	70	2J	2J	1J	1J	5U	1J	1J	0.9J	0.7J	0.9J	1J	1J	1J	0.8J	0.7J	0.6J	0.5U	0.5U	0.5U	0.5U	0.5J	0.6J	0.5U	5U
Methylcyclohexane	ug/L	N	100	27	26	36	11	10U	10	30	12	9	7	21	20	23	7	9	13	1U	1U	1U	1U	1U	1U	1U	10U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	20U
Styrene	ug/L	N	100	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U
Toluene	ug/L	N	600	0.7J	3J	1J	0.7U	7U	0.7U	0.9J	0.7U	0.7U	0.7U	3J	2J	4J	0.7U	0.7J	1	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	10U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	10U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	20U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	10U
Xylene (total)	ug/L	N	1000	2J	4J	5	1J	8U	1J	4J	1J	1J	0.8U	7	6	10	1J	2	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-152
			Sample Date	03/23/2005	09/13/2005	03/23/2006	09/19/2006	04/24/2007	09/11/2007	04/10/2008	09/18/2008	03/13/2009	09/23/2009	03/19/2010	08/18/2010	04/28/2011	06/20/2012	07/11/2013	08/16/2013	10/30/2013	01/09/2014	08/15/2014	11/06/2014	09/22/2017	10/25/2017	02/16/2018	10/08/2002
			Field Sample ID	M151A6	M151A7	M151A8	M151A9	M151B1	M151B2	M151B3X	M151B4X	M151B5X	M151B6X	M151B7X	M151B8X	M151B9X	M151C1X	M151C2X	M151C2	M151C3X	M151C4X	M151C5X	M151C6X	M151E1X	M151E2	M151E3X	M152A1X
			SDG	RFF44	959069	982888	1006278	1035058	1055613	1085976	1110903	1136060	1163168	RFS34	RFS64	RFT14	RFU86	RFB36	CP076	CP173	CP252	CP464	CS182	CQ784	CQ839	CS648	RFE26
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	-	-	0.5U	-	0.5U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	-	-	0.5U	-	0.5U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	0.5U	-	0.5U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	-	-	0.5U	-	0.5U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	2U	2U	-	-	2U	-	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	0.5U	-	0.5U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	1U	-	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	2U	2U	-	-	2U	-	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	0.5U	-	0.5U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	1U	-	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	0.5U	-	0.5U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	0.5U	-	0.5U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	1U	-	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	1U	-	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	3U	3U	3UJ	-	-	3U	-	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	3U	3U	3U	-	-	3U	-	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	3U	3U	3UJ	-	-	3U	-	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	21	6U	6U	6U	13J	6U	6U	6U	6U	-	-	6U	6U	6U	-	-	6U	-	6U	13J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	1U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	0.5U	-	0.5U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	0.5U	-	0.5U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	0.5U	-	0.5U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	1U	-	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	0.5U	-	0.5U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	-	-	0.5U	-	0.5U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	0.5U	-	0.5U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	-	-	0.5U	-	0.5U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	0.5U	-	0.5U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	-	-	0.5U	-	0.5U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	0.5U	-	0.5U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	2U	2U	-	-	2U	-	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	0.5U	-	0.5U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	2U	2U	-	-	0.5U	-	0.5U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	1U	0.5U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1J	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	1U	-	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11000	-	-	9500	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	1U	-	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	0.5U	0.5U	0.5U	-	-	0.5U	-	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	2J	1U	1U	1U	2J	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	1U	-	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	2U	2U	-	-	0.5U	-	0.5U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	1U	-	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	-	-	0.5U	-	0.5U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	-	0.5U	0.5U	1U	0.5U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	-	-	0.5U	-	0.5U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	0.5U	-	0.5U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	0.5U	-	0.5U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	2U	2U	-	-	0.5U	-	0.5U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	-	-	0.5U	-	0.5U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	1U	0.5U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24J	-	20U	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20U	20J	20U	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-153
			Sample Date	01/23/2003	06/18/2003	11/21/2003	08/12/2004	08/18/2005	11/17/2005	03/14/2006	07/13/2006	10/27/2006	04/20/2007	09/07/2007	03/11/2008	09/03/2008	03/04/2009	09/29/2009	04/08/2010	10/22/2010	05/17/2011	07/12/2013	07/12/2013	03/18/2015	06/30/2015	10/06/2015	10/07/2002
			Field Sample ID	M152A2Y	M152A3	M152A4A	MW152A5	M152A7X	M152A8X	M152A9X	M152B1X	M152B2X	M152B3X	M152B4X	M152B5X	M152B6X	M152B7X	M152B8X	M152B9X	M152C1X	M152C2X	D0712131	M152C3X	M152C4	M152C5	M152C6	M153A1Y
			SDG	RFE58	RFE77	RFE93	RFF20	956018	967951	981574	997280	1011912	1034667	1055139	1081108	1108227	1134619	1163942	RFS37	RFS74	RFT22	RFB37	RFB37	CP669	CP765	CP860	RFE26
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	4U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	4U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	4U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	6J	3U	3U	3U	3U	3U	3U	3U	3U	-	15U	-	-	-	-	-	-	-	-	-	-	-	-	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	15U	-	-	-	-	-	-	-	-	-	-	-	-	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	15U	-	-	-	-	-	-	-	-	-	-	-	-	3U
Acetone	ug/L	N	6000	25	11J	18J	6U	16J	13J	14J	8J	6U	-	30U	-	-	-	-	-	-	-	-	-	-	-	-	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2J	0.5U	0.5U	-	-	-	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	4U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	4U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	4U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7400	8800	12000	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	3U	-	-	-	-	-	-	-	-	-	-	-	-	0.6J
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	4U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	7U	4U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	-	-	-	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	4U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153
			Sample Date	01/22/2003	07/23/2003	11/04/2003	08/19/2004	04/07/2005	08/25/2005	03/15/2006	09/19/2006	03/21/2007	09/11/2007	03/11/2008	09/03/2008	04/02/2009	09/23/2009	03/02/2010	09/02/2010	03/29/2011	10/25/2011	06/06/2012	09/05/2012	07/03/2013	10/04/2013	06/11/2014	01/14/2015
			Field Sample ID	M153A2Y	M153A3	M153A4A	M153A5	M153A6	M153A7	M153A8	M153A9	M153B1	M153B2X	M153B3X	M153B4X	M153B5X	M153B6X	M153B7X	M153B8X	M153B9X	M153C1X	M153C2X	M153C3X	M153C4X	M153C5X	M153C6X	M153C7X
			SDG	RFE58	RFE83	RFE91	RFF19	RFF47	956931	981802	1006278	1030299	1055613	1081108	1108227	1138848	1163168	RFS32	RFS65	RFT03	RFT81	RFU79	RFV35	RFB29	CS023	CS111	CS194
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	-	6U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	1J	0.5U	0.5U	0.5U	0.8J	0.5U	0.5U	0.5U	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
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Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-153	MW-153	MW-153	MW-153	MW-153	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154
			Sample Date	01/07/2016	08/05/2016	02/28/2017	08/29/2017	03/13/2018	10/17/2002	01/31/2003	09/11/2003	07/30/2008	11/11/2008	06/09/2009	11/19/2009	06/15/2010	09/29/2010	08/04/2011	11/22/2011	03/27/2012	08/16/2012	04/04/2013	10/29/2013	03/28/2014	11/13/2014	04/16/2015	02/02/2016
			Field Sample ID	M153C8X	M153C9X	M153D1X	M153D2X	M153D3X	M154A1Y	M154A2X	M154A3	M154A4X	M154A5X	M154A6X	M154A7X	M154A8X-100615	M154A9X	M154B1X	M154B2X	M154B3X	M154B4X	M154B5X	M154B7X	M154B8X	M154B9X	M154C1X	M154HS
			SDG	CS337	CS438	CS521	CS595	CS657	RFE33	RFE62	RFE86	1103086	1119533	1148434	1171988	RFS47	RFS69	RFT50	RFT88	RFU30	RFV29	RFY53	CS034	CS078	CS185	CS221	CS349
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	1U	6	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	-	-	-	-
Acetone	ug/L	N	6000	-	-	-	-	-	10J	6U	6U	-	-	-	-	-	-	-	-	-	-	-	6U	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
Bromoform	ug/L	N	4	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
Chloroform	ug/L	N	70	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.5U	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	-	-
Styrene	ug/L	N	100	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	-	-	-	-
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	4U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-154	MW-154	MW-154	MW-154	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-156	MW-156
			Sample Date	02/09/2016	08/16/2016	02/15/2017	08/22/2017	10/31/2002	02/20/2003	10/16/2003	09/02/2004	04/14/2005	09/07/2005	04/04/2006	09/26/2006	03/23/2007	09/11/2007	04/10/2008	09/19/2008	03/25/2009	09/17/2009	02/05/2010	08/31/2010	04/15/2011	06/08/2012	10/31/2002	02/20/2003
			Field Sample ID	M154C2X	M154C3X	M154C4X	M154C5X	M155A1	M155A2Y	M155A4	M155A5	M155A6X	M155A7	M155A8	M155A9	M155B1	M155B2	M155B3X	M155B4X	M155B5X	M155B6X	M155B7X	M155B8X	M155B9X	M155C1X	M156A1	M156A2Y
			SDG	CS353	CS440	CS514	CS592	LNA05	RFE65	RFE90	RFF22	RFF48	958318	984270	1007507	1030794	1055613	1085976	1111172	1137663	1162355	1181719	RFS65	RFT09	RFU81	LNA05	RFE65
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	4J	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	3U	3U	3U	15U	3U	3U	3U	3J
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	3U	3U	3U	15U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	3U	3U	3U	15U	3U	3U	3U	3U
Acetone	ug/L	N	6000	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	-	6U	6U	6U	6U	6U	6U	30U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	2J	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	4J	2J
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
Bromoform	ug/L	N	4	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
Chloroform	ug/L	N	70	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	-	-	-	-	25	12	2U	2U	3J	2U	4J	2U	-	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	5J	2J
Isopropylbenzene	ug/L	N	700	-	-	-	-	15	3J	2J	4J	2J	2J	6	2J	-	2J	4J	1U	5J	1U	4J	5U	6	4J	3J	2J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	-	15	3J	1U	1U	1U	1U	4J	1U	-	1U	1J	1U	1J	1U	1U	5U	1U	1U	1J	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U
Styrene	ug/L	N	100	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5U	0.8J	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	4U	0.7U	0.7U	4J	0.9J
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	2J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	13	5
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156R	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157
			Sample Date	10/16/2003	09/01/2004	04/14/2005	09/07/2005	04/04/2006	09/26/2006	03/30/2007	09/11/2007	04/10/2008	09/19/2008	03/25/2009	09/17/2009	02/05/2010	08/31/2010	04/15/2011	06/08/2012	11/05/2015	05/15/2003	11/25/2003	08/25/2004	04/14/2005	09/15/2005	04/06/2006	09/26/2006
			Field Sample ID	M156A4	M156A5	M156A6X	M156A7X	M156A8X	M156A9X	M156B1X	M156B2X	M156B3X	M156B4X	M156B5X	M156B6X	M156B7X	M156B8X	M156B9X	M156C1X	M156A1X	M157A1	M157A3A	M157A4	M157A5X	M157A6X	M157A7X	M157A8X
			SDG	RFE90	RFF22	RFF48	958318	984270	1007507	1031765	1055613	1085976	1111172	1137663	1162355	1181719	RFS65	RFT09	RFU81	CS309	RFE74	RFE93	RFF21	RFF48	959422	984700	1007507
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	7J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	30U	6U	6U	6U	6U	6U	6U	6U	6U	6U	34	6U	6U	6U	6U	6U	6U	6U	9J	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	4J	1J	1J	3J	2J	3J	0.5U	0.5U	0.5U	2J	1J	0.5J	1J	0.5U	0.5U	0.5U	0.5U	4J	0.5U	2J	1J	4J	0.5U	2J
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5UJ	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5UJ	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	10U	2U	2U	2U	4J	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	4J	0.8U	0.9J	4J	2J	2J	0.8U	0.8U	0.8U	2J	1J	0.8U	0.8J	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	5U	1U	1J	2J	2J	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	15	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5J	5	0.5U	0.5U	0.9J	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	5U	1U	1U	1U	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	4U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	4J	0.8U	1J	3J	0.9J	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
			Sample Date	04/26/2007	03/25/2008	03/27/2009	04/13/2010	12/09/2011	06/27/2012	07/02/2013	09/17/2014	12/05/2002	02/04/2003	09/29/2003	05/27/2004	08/09/2004	03/10/2005	08/11/2005	03/07/2006	09/01/2006	03/13/2007	09/21/2007	03/04/2008	09/30/2008	02/18/2009	10/13/2009	03/11/2010
			Field Sample ID	M157A9X	M157B1X	M157B2X	M157B3X	M157B4X	M157B5X	M157B6X	M157B7X	M158A1X	M158A2X	M158A3	040527MW-158	MW158A4	M158A5	M158A6	M158A7	M158A8	M158A9	M158B1	M158B2X	M158B3X	M158B4X	M158B5X	M158B6X
			SDG	1035529	1083150	1138048	RFS38	RFT92	RFU93	RFB27	CS157	RFE45	RFE62	RFE87	PHS01	RFF18	RFF43	955073	980623	1004086	1029141	1057469	1080011	1112628	1132740	1166229	RFS33
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	2U	2U	2U	10U	2U	2U	2U	2U	4U	2U	10U	10U	20U	2U	10U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	2U	2U	2U	10U	2U	2U	2U	2U	4U	2U	10U	10U	20U	2U	10U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	3U	12	3U	15U	3U	3U	3U	3U	6U	3U	15U	15U	30U	3U	15U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	3U	3U	3U	15U	3U	3U	3U	3U	6U	3U	15U	15U	30U	3U	15U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	3U	3U	3U	15U	3U	3U	3U	3U	6U	3U	15U	15U	30U	3U	15U	3U
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	6U	15J	6U	30U	6U	6U	6U	36	20J	17J	30U	30U	60U	42	30U	9J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.6J	0.5U	0.5U	0.9J	0.6J	3J	0.7J	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	3U	3U	5U	0.5U	3U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	1U	1U	2J	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	2U	2U	2U	10U	2U	2U	2U	2U	4U	2U	10U	10U	20U	2U	10U	2U
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	2U	2U	2U	10UJ	2U	2U	2U	2U	4U	2U	10U	10U	20U	2U	10U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	3U	3U	5U	0.5U	3U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	2U	2U	2U	10U	2U	2U	2U	2U	4U	2U	10U	10U	20U	2U	10U	2U
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U	4U	0.7U	0.7U	0.7U	0.7U	1U	0.7U	4U	4U	7U	0.7U	4U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	2U	2U	2U	10U	2U	2U	2U	2U	4U	2U	10U	10U	20U	2U	10U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
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Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-165R	MW-165R	MW-165R	MW-165R	MW-165R	MW-166R	MW-166R	MW-166R	MW-166R	MW-167
			Sample Date	08/18/2010	04/26/2011	09/22/2011	06/07/2012	09/05/2012	05/21/2013	10/02/2013	06/25/2014	11/06/2014	07/15/2015	03/18/2016	09/13/2016	03/29/2017	08/30/2017	04/26/2017	09/06/2017	11/30/2017	11/30/2017	03/09/2018	04/26/2017	09/14/2017	12/15/2017	03/09/2018	04/10/2003
			Field Sample ID	M158B7X	M158B8X	M158B9X	M158C1X	M158C2X	M158C3X	M158C4X	M158C5X	M158C6X	M158C7X	M158C8X	M158C9X	M158D1X	M158D2X	M165RA5X	M165RA6X	D1130178	M165RA7X	M165RA8X	M166RD1X	M166RD2X	M166RD3X	M166RD4X	M167A1Y
			SDG	RFS64	RFT13	RFT71	RFU80	RFV35	RFZ61	CS020	CS117	CS182	CS261	CS376	CS452	CS533	CS596	CQ608	CQ756	CQ910	CQ910	CQ997	CQ608	CS603	CS627	CQ997	RFE70
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	3J
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	45
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	10UJ	2U	2U	2U	20U	2U	2U	2U	2U	2U	4U	20U	10UJ	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	75
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	10UJ	2U	2U	2U	20U	2U	2U	2U	2U	2U	4U	20U	10U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3J	6J	3U	3U	3U	3U	3U	15UJ	6J	3U	5J	30U	3U	3U	3U	3U	3U	6U	30UJ	15U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	15UJ	3U	3U	3U	30U	3U	3U	3U	3U	3U	6U	30UJ	15U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	15UJ	3U	3U	3U	30U	3U	3U	3U	3U	3U	6U	30UJ	15U	3U	3U
Acetone	ug/L	N	6000	6U	6U	21	57	6U	12J	6U	6U	6U	30UJ	45J	7J	20J	60U	6U	6U	6U	6U	6U	12U	60U	30U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	3	2	2	1	2J	5U	3U	0.6J	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	1U	5U	3U	0.5U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	30
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.7J	0.6J	0.6J	0.8J	1U	5U	3U	0.5U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	10UJ	2U	2U	2U	20U	2U	2U	2U	2U	2U	4U	20U	10U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	2	0.5U	0.5U	0.6J	3	5U	3J	2	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	0.6J
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	10UJ	2U	2U	2U	20U	2U	2U	0.5U	0.5U	0.5U	4U	5U	3U	0.5U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	2	5U	3U	0.6J	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	1U	5U	3U	0.5U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.7J	0.5U	0.5U	0.5U	9	5U	3U	3	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-168	MW-168	MW-168
			Sample Date	02/18/2004	08/12/2004	10/19/2004	01/13/2005	05/19/2005	07/26/2005	11/29/2005	02/09/2006	05/02/2006	07/11/2006	09/25/2007	06/05/2008	07/29/2009	07/29/2010	08/25/2011	07/03/2012	08/06/2013	08/12/2014	12/03/2015	04/28/2016	06/15/2017	04/17/2003	02/10/2004	07/15/2004
			Field Sample ID	M167A2	M167A3	M167A4X	M167A5X	M167A6X	M167A7X	M167A8X	M167A9X	M167B1X	M167B2X	M167B3X	M167B4X	M167B5X	M167B6X	M167B7X	M167B8X	M167B9X	M167C1X	M167C2X	M167C3X	M167C4X	M168A1Y	M168A2A	M168A3
			SDG	RFE97	RFF16	RFF30	RFF36	RFF53	952791	969074	977634	987857	996873	1057932	1094772	1155531	RFS60	RFT63	RFU98	RFB82	CS140	CS323	CS392	CS573	RFE71	RFE96	RFF16
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	7	6	10	0.8U	4J	4J	3J	48	3J	7	0.8U	4J	6	1J	4J	5	4J	0.5U	0.5U	5U	0.5U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	190	22	54	8	21	63	95	870	45	120	3J	85	6	0.8U	14	3J	0.8U	0.5U	0.5U	5U	0.5U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U	0.5U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5U	0.5U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	230	140	280	16	150	180	200	530	150	320	13	170	98	3J	77	73	31	0.6J	0.8J	5U	0.5U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U	0.5U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U	0.5U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U	0.5U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	60U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U	0.5U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U	0.5U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U	0.5U	1U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	10U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U	0.5U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5U	0.5U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	61	86	120	1U	92	24	5J	2J	46	30	2J	33	56	75	27	62	2J	23	4	8J	6	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5U	0.5U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	7J	0.5U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	3J	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.9J	0.8U	0.5U	0.5U	5U	0.5U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U	0.5U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U	0.5U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	5U	0.5U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	1.0U	1.0U	1.0U	2.4J	1.0U	1.0U	1.0U	1.0U	2.1J	1.0U	3.0J	1.0U	13	3.8J	5.7	8.9	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5U	0.5U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	7200	5900	1900	7500	150	1000	9.8	3700	94	260	610	120	5100	22	3300	250	4000	760	1000	2100	-	-	2200
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.6J	0.6J	0.7J	0.5U	0.5U	0.8J	0.8J	0.5J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5U	0.5U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	5U	0.5U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5U	0.5U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U	0.5U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1J	1U	1U	1U	1U	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U	0.5U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	5U	0.5U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1J	3J	1U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1J	1U	1U	1U	0.5U	0.5U	5U	0.5U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5U	0.5U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170
			Sample Date	10/08/2004	02/23/2005	05/05/2005	07/19/2005	12/01/2005	02/16/2006	05/02/2006	07/19/2006	05/30/2008	09/02/2009	07/27/2010	08/25/2011	06/19/2012	06/12/2013	08/01/2013	08/13/2014	12/02/2015	06/16/2017	04/16/2003	02/18/2004	07/15/2004	10/12/2004	01/06/2005	05/19/2005
			Field Sample ID	M168A4X	M168A5X	M168A6X	M168A7X	M168A8X	M168A9X	M168B1X	M168B2X	M168B3X	M168B4X	M168B5X	M168B6X	M168B7X	M168B8X	M168B9X	M168C1X	M168C2X	M168C4X	M170A1Y	M170A2A	M170A3	M170A4X	M170A5X	M170A6X
			SDG	RFF29	RFF39	RFF49	951863	969425	978446	987857	998044	1093788	1160329	RFS58	RFT63	RFU85	RFZ94	RFB78	CS141	CS322	CS574	RFE71	RFE97	RFF16	RFF29	RFF35	RFF53
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	0.8U	0.8U	0.9J	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	2J	1J	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	-	-	-	-	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	-	-	-	-	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	-	-	-	-	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	6U	-	-	-	-	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1UJ	-	-	-	-	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	1.3J	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	76	4200	1900	2400	29	19	4.9J	2.0U	-	-	-	-	-	-	-	-	-	-	-	-	2.0U	7.3	3.0J	2.0U
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	0.5U	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-171	MW-171	MW-171	MW-171	MW-171	MW-171
			Sample Date	07/28/2005	12/16/2005	02/24/2006	05/10/2006	07/21/2006	06/12/2008	10/10/2008	08/20/2009	11/05/2009	06/22/2010	10/26/2010	09/02/2011	12/08/2011	06/28/2012	09/11/2012	08/08/2013	11/01/2013	11/01/2013	04/15/2003	11/18/2003	03/29/2005	08/24/2005	04/06/2006	10/10/2006
			Field Sample ID	M170A7X	M170A8X	M170A9X	M170B1X	M170B2X	M170B4X	M170B5X	M170B6X	M170B7X	M170B8X-100622	M170B9X	M170C1X	M170C2X	M170C3X	M170C4X	M170C5X	D1101131	M170C6X	M171A1Y	M171A4	M171A6	M171A7	M171A8	M171A9
			SDG	953193	971536	979428	989100	998385	1095834	1114607	1158618	1169793	RFS48	RFS75	RFT66	RFT91	RFU94	RFV40	RFB85	CS037	CS037	RFE71	RFE93	RFF46	956750	984700	1009241
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1J	1U	1U	1U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-
Ethene	ug/L	N	NS	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	-	5.0U	5.0J	5.0U	10U	5.0U	5.0U	5.0U	5.0U	3.0U	3.0U	3.0U	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-171	MW-171	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172
			Sample Date	04/18/2007	09/13/2007	04/09/2003	10/24/2003	08/17/2004	03/17/2005	09/01/2005	03/15/2006	09/06/2006	03/23/2007	09/07/2007	03/20/2008	09/09/2008	04/02/2009	10/13/2009	03/31/2010	08/17/2010	05/19/2011	09/22/2011	06/20/2012	09/07/2012	07/11/2013	06/20/2014	11/05/2014
			Field Sample ID	M171B1	M171B2	M172A1Y	M172A2A	M172A3	M172A4	M172A5	M172A6	M172A7	M172A8	M172A9	M172B1X	M172B2X	M172B3X	M172B4X	M172B5X	M172B6X	M172B7X	M172B8X	M172B9X	M172C1X	M172C2X	M172C4X	D1105141
			SDG	1034314	1056329	RFE70	RFE90	RFF19	RFF44	957808	981802	1004466	1030794	1055139	1082600	1109174	1138848	1166229	RFS36	RFS64	RFT23	RFT71	RFU86	RFV38	RFB36	CS115	CS181
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	8J	6U	6U	6U	6U	6U	6U	6U	6U	-	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	33	2J	2U	2U	2U	2U	2U	2U	2U	-	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20	2J	1U	1U	1U	1U	1U	1U	1U	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-172	MW-172	MW-172	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174
			Sample Date	11/05/2014	07/10/2015	09/13/2017	04/28/2003	06/30/2003	11/17/2003	08/11/2004	03/15/2005	08/30/2005	03/09/2006	09/06/2006	03/15/2007	03/06/2008	02/20/2009	03/24/2010	10/05/2011	06/27/2012	05/10/2013	04/14/2003	07/21/2003	10/22/2003	08/19/2004	04/07/2005	08/23/2005
			Field Sample ID	M172C5X	M172C6X	M172D1X	M173A1	M173A2	M173A3	MW173A4	M173A5X	M173A6X	M173A7X	M173A8X	M173A9X	M173B1X	M173B2X	M173B3X	M173B5X	M173B6X	M173B7X	M174A1X	M174A2	M174A3	M174A4	M174A5	M174A6
			SDG	CS181	CS259	CS602		RFE79	RFE93	RFF19	RFF43	957459	981013	1004466	1029582	1080472	1133129	RFS35	RFT75	RFU93	RFZ36	RFE71	RFE83	RFE90	RFF19	RFF47	956523
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3UJ	3	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6	6U	30	6U	6U	6U	6U	6U	-	-	-	-	-	-	-	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2	2U	2U	2U	2U	2J	2U	2U	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	2	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.7	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	2	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174	MW-175	MW-175	MW-175	MW-175	MW-175	MW-175	MW-175	MW-175	MW-175	MW-175	MW-178	MW-178	MW-178	MW-178	MW-178
			Sample Date	03/21/2006	09/12/2006	03/28/2007	03/27/2008	03/27/2008	03/13/2009	04/13/2010	05/17/2011	06/06/2012	04/15/2003	11/13/2003	09/01/2004	09/01/2004	03/29/2005	08/24/2005	04/06/2006	10/10/2006	04/18/2007	09/13/2007	05/09/2003	10/27/2003	11/28/2007	03/25/2008	09/30/2008
			Field Sample ID	M174A7	M174A8	M174A9	D0327081	M174B1X	M174B2X	M174B3X	M174B4X	M174B5X	M175A1Y	M175A3	M171A5	M175A4	M175A5	M175A6	M175A7	M175A8	M175A9	M175B1	M178A1	M178A2	M178A3X	M178A4X	M178A5X
			SDG	982474	1005262	1031345	1083600	1083600	1136060	RFS38	RFT22	RFU79	RFE71	RFE92	RFF22	RFF22	RFF46	956750	984700	1009241	1034314	1056329	RFE74	RFE91	1067242	1083150	1112628
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	-	-	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.6J
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-178	MW-178	MW-178	MW-178	MW-178	MW-178	MW-178	MW-178	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183
			Sample Date	03/11/2009	05/18/2009	10/13/2009	03/04/2010	04/08/2011	06/05/2012	07/02/2013	09/17/2014	02/04/2004	07/08/2004	10/21/2004	01/05/2005	05/17/2005	07/27/2005	11/29/2005	02/09/2006	04/26/2006	07/07/2006	05/22/2008	07/24/2009	08/03/2010	08/23/2011	06/19/2012	08/08/2013
			Field Sample ID	M178A6X	M178A7X	M178A8X	M178A9X	M178B1X	M178B2X	M178B3X	M178B4X	M183A1A	M183A2	M183A3X	M183A4X	M183A5X	M183A6X	M183A7X	M183A8X	M183A9X	M183B1X	M183B2X	M183B3X	M183B4X	M183B5X	M183B6X	M183B7X
			SDG	1135630	1145283	1166229	RFS32	RFT06	RFU78	RFB27	CS157	RFE96	RFF16	RFF31	RFF35	RFF52	952987	969074	977634	987154	996484	1092717	1154932	RFS62	RFT62	RFU85	RFB85
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	-	-	-	9J	6U	17J	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	3J	0.5U	0.5U	0.5U	6	2J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	10	2.0U	5.5	4.3J	2.8J	5.9	2.0U	4.3J	2.0U	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-183	MW-183	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-188	MW-188
			Sample Date	09/15/2016	06/15/2017	02/05/2004	07/15/2004	10/08/2004	02/23/2005	05/05/2005	07/19/2005	12/06/2005	02/17/2006	05/09/2006	07/19/2006	10/04/2007	05/28/2008	08/20/2009	08/03/2010	09/07/2011	06/28/2012	08/01/2013	08/13/2014	12/02/2015	06/16/2017	06/25/2004	07/16/2004
			Field Sample ID	M183B8X	M183B9X	M186A1	M186A2	M186A3X	M186A4X	M186A5X	M186A6X	M186A7X	M186A8X	M186A9X	M186B1X	M186B2X	M186B3X	M186B4X	M186B5X	M186B6X	M186B8X	M186B9X	M186C1X	M186C2X	M186C4X	M188A1	M188A2
			SDG	CS454	CS573	RFE96	RFF16	RFF29	RFF39	RFF49	951863	970020	978621	988894	998044	1059557	1093320	1158618	RFS62	RFT67	RFU94	RFB78	CS141	CS322	CS574	RFF15	RFF16
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	140	75
1,1,1-Trichloroethane	ug/L	N	30	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	90	60
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	5J	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	-	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	25	28	6UJ	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10	9
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U
Bromoform	ug/L	N	4	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U
Chlorobenzene	ug/L	N	50	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U
Chloroethane	ug/L	N	5	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	6	4J
Chloroform	ug/L	N	70	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	6	4J
cis-1,3-Dichloropropene	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U
Cyclohexane	ug/L	N	100	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	150	42	9.7	19	49	2.0U	39	4.8J	100	2.0U	23	44	12J	170	85	50	17000	2100	240	-	2800
Methyl acetate	ug/L	N	7000	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5J	3J
Methylcyclohexane	ug/L	N	100	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	3J	4J
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	5	0.5U	0.5U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	5J	3J
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	67	47
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188
			Sample Date	10/14/2004	01/11/2005	05/17/2005	07/27/2005	12/20/2005	02/28/2006	05/16/2006	08/17/2006	10/18/2012	10/18/2012	10/18/2012	12/13/2012	12/13/2012	02/14/2013	02/14/2013	04/22/2013	04/22/2013	06/12/2013	06/12/2013	09/20/2013	09/20/2013	01/10/2014	01/10/2014	04/10/2014
			Field Sample ID	M188A3X	M188A4X	M188A5X	M188A6X	M188A7X	M188A8X	M188A9X	M188B1X	D1018126	M188B2X	M188B2X	M188B3X	M188B3X	M188B4X	M188B4X	M188B5X	M188B5X	M188B6X	M188B6X	M188B7X	M188B7X	M188B8X	M188B8X	M188B9X
			SDG	RFF30	RFF35	RFF52	952987	971917	979761	989833	1002095	RFV81	RFV81		RFX16		RFX62		RFY85		RFZ94		CP109		CP256		CP310
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	110	72	67	36	64	67	72	58	31	32	-	24	-	20	-	20	-	0.8U	-	28	-	1J	-	19
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U
1,1-Dichloroethane	ug/L	N	50	85	64	57	37	59	65	69	53	43	42	-	31	-	35	-	32	-	1U	-	40	-	2J	-	32
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1UJ	-	1U	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1UJ	-	1U	-	1U	-	1U	-	0.5U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	3U	-	3UJ	-	3U	-	3U	-	3U	-	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	3U	-	3UJ	-	3U	-	3U	-	3U	-	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	3U	-	3UJ	-	3U	-	3U	-	3U	-	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	6U	-	6U	-	6UJ	-	6U	-	6U	-	6U	-	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	11	7	5	3J	6	7	7	5J	4J	4J	-	3J	-	4J	-	3J	-	0.5U	-	3J	-	0.5U	-	3
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1UJ	-	1U	-	1U	-	1U	-	0.5U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1UJ	-	1U	-	1U	-	1U	-	0.5U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U
Chloroethane	ug/L	N	5	5	5	4J	3J	7	6	6	5J	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	6	4J	4J	2J	3J	5J	5J	4J	3J	3J	-	3J	-	3J	-	3J	-	0.8U	-	3J	-	0.8U	-	3
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	0.5U
Ethane	ug/L	N	NS	-	-	-	1.4J	2.3J	2.8J	2.9J	100U	-	-	2.1	-	1.5	-	2	-	2.3	-	0.015J	-	2.7	-	0.098	-
Ethene	ug/L	N	NS	-	-	-	1.5J	2.0J	1.0U	2.2J	2.3J	-	-	3.2	-	1.6	-	2	-	2.1	-	0.036	-	2.5	-	0.14	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Methane	ug/L	N	NS	4500	3700	3000	2800	4200	4700	3700	3700	-	-	2500	-	1600	-	3600	-	3000	-	9.8	-	2600	-	92	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Methyl-t-butyl ether	ug/L	N	70	5J	4J	3J	2J	3J	3J	3J	3J	1J	1J	-	0.6J	-	0.7J	-	0.7J	-	0.5U	-	0.7J	-	0.5U	-	0.5J
Methylcyclohexane	ug/L	N	100	2J	1J	2J	1U	2J	3J	3J	2J	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	-	0.7U	-	0.7U	-	0.7U	-	0.7U	-	0.7U	-	0.7U	-	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	4J	3J	2J	1J	2J	3J	2J	2J	1U	1J	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	65	56	42	29	50	50	50	34	26	27	-	24	-	20	-	20	-	1U	-	25	-	1U	-	19
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189
			Sample Date	04/10/2014	06/19/2014	06/19/2014	09/04/2014	09/04/2014	10/29/2014	10/29/2014	10/29/2014	09/09/2015	09/09/2015	10/20/2015	10/20/2015	02/11/2016	05/24/2016	08/10/2016	11/09/2016	05/26/2017	06/25/2004	07/19/2004	10/14/2004	01/11/2005	05/17/2005	07/27/2005	12/20/2005
			Field Sample ID	M188B9X	M188C1X	M188C1X	M188C2X	M188C2X	M188C3X	M188C3X	M188C3X	M188C5X	M188C5X	M188C6X	M188C6X	M188C7X	M188C8X	M188C9X	M188D1X	M188D2X	M189A1	M189A2	M189A3X	M189A4X	M189A5X	M189A6X	M189A7X
			SDG		CP372		1503787	CP491	1525660	CP571		1592537	CP837	1606860	CP894	CQ012	CQ111	CQ234	CQ431	CQ655	RFF15	RFF17	RFF30	RFF35	RFF52	952987	971917
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	13	-	-	0.5U	-	40	-	-	6	-	2	0.5U	9	6	5	0.8J	160	180	150	110	110	130	140
1,1,1-Trichloroethane	ug/L	N	30	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	-	-	2U	-	2UJ	-	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	21	-	-	0.5U	-	51	-	-	8	-	2	1	13	7	5	2	47	54	43	30	32	40	39
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	-	-	2U	-	2UJ	-	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	0.5U	-	-	0.5UJ	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	-	-	3U	-	3UJ	-	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	-	-	3U	-	3UJ	-	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	3U	-	-	3U	-	3UJ	-	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	-	6U	-	-	6U	-	6UJ	-	-	7J	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	2	-	-	0.5U	-	3	-	-	0.6J	-	0.5U	0.5U	1	0.5U	0.5U	0.5U	1J	2J	2J	1J	1J	1J	1J
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	-	0.5U	-	-	0.5UJ	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	2	-	-	0.5U	-	4	-	-	0.7J	-	0.5U	0.5U	1	0.6J	0.5J	0.5U	36	42	37	27	28	34	36
cis-1,3-Dichloropropene	ug/L	N	1	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	-	2U	-	-	2U	-	2UJ	-	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	0.5U	-	-	0.5U	-	1UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	2.3	-	2	0.09	-	3.00	-	3	1.70n	-	1.10n	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U
Ethene	ug/L	N	NS	1.5	-	0.89	0.20	-	2.40	-	2.4	1.40n	-	1.20n	-	-	-	-	-	-	-	-	-	-	-	2.0J	2.2J
Ethylbenzene	ug/L	N	700	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	1800	-	1800	320.00	-	1800.00	-	1800	1100.00n	-	620.00n	-	-	-	-	-	-	-	1700	3000	3500	4200	2000	1900
Methyl acetate	ug/L	N	7000	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	-	-	0.5U	-	0.8J	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	-	-	2U	-	2UJ	-	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	0.5U	-	-	0.5U	-	0.8J	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	18	22	17	18	16	16	18
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	14	-	-	0.5U	-	25	-	-	5	-	1	0.5J	10	5	2	0.5U	98	90	83	64	69	62	79
Xylene (total)	ug/L	N	1000	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189
			Sample Date	02/28/2006	05/16/2006	08/17/2006	10/17/2012	10/17/2012	06/12/2013	06/12/2013	06/19/2014	06/19/2014	09/04/2014	09/04/2014	10/29/2014	10/29/2014	10/29/2014	09/09/2015	09/09/2015	09/09/2015	10/20/2015	10/20/2015	02/11/2016	05/24/2016	08/10/2016	11/09/2016	05/26/2017
			Field Sample ID	M189A8X	M189A9X	M189B1X	M189B2X	M189B2X	M189B3X	M189B3X	M189B4X	M189B4X	M189B5X	M189B5X	M189B6X	M189B6X	M189B6X	D0909155	M189B8X	M189B8X	M189B9X	M189B9X	M189C1X	M189C2X	M189C3X	M189C4X	M189C5X
			SDG	979761	989833	1002095	RFV76		RFZ94		CP372		1503787	CP491	1525660	CP571		CP837	1592537	CP837	1606860	CP894	CQ012	CQ111	CQ234	CQ431	CQ655
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	130	120	150	71	-	4J	-	35	-	-	19	-	41	-	50	-	50	-	51	16	46	18	37	2
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	-	1U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	-	2U	-	2U	-	-	2U	-	2UJ	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	39	35	39	25	-	1J	-	11	-	-	7	-	13	-	16	-	15	-	16	5	13	5	10	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	-	2U	-	2U	-	-	2U	-	2UJ	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	-	1U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	-	1U	-	0.5U	-	-	0.5UJ	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	-	1U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	-	3U	-	3U	-	-	3U	-	3UJ	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	-	3U	-	3U	-	-	3U	-	3UJ	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	-	3U	-	3U	-	-	3U	-	3UJ	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	-	6U	-	6U	-	-	6U	-	6UJ	-	6U	-	6U	-	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1J	1J	1J	0.9J	-	0.5U	-	0.5J	-	-	0.5U	-	0.7J	-	0.8J	-	0.8J	-	0.8J	0.5U	0.7J	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	-	1U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	1U	1U	1U	1U	-	1U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	-	1U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	-	1U	-	0.5U	-	-	0.5UJ	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	-	1U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	-	1U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	37	35	39	37	-	3J	-	21	-	-	13	-	25	-	29	-	28	-	29	11	28	12	23	0.9J
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	-	1U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	-	2U	-	2U	-	-	2U	-	2UJ	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	-	1U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	-	2U	-	0.5U	-	-	0.5U	-	1UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	1.0U	1.0U	100U	-	0.94	-	0.13	-	0.55	0.0080J	-	1.10	-	1.1	-	1.60n	-	1.60n	-	-	-	-	-	-
Ethene	ug/L	N	NS	2.2J	1.3J	2.7J	-	2.2	-	0.56	-	1.4	0.02J	-	2.20	-	2.2	-	2.20n	-	2.10n	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	2900	2400	1900	-	1000	-	2400	-	720	1.10	-	920.00	-	920	-	1600.00n	-	1200.00n	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	-	2U	-	2U	-	-	2U	-	2UJ	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	-	1U	-	1U	-	-	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	-	0.7U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-	-	0.5U	-	0.5J	-	0.5U	-	0.5U	-	0.5J	0.5U	0.5J	0.5U	0.5J	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	-	1U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	23	19	26	11	-	1J	-	4	-	-	3	-	4	-	7	-	7	-	8	3	5	2	5	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	-	2U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	78	70	64	52	-	4J	-	31	-	-	18	-	33	-	37	-	37	-	34	10	28	14	17	1
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
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Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-193
			Sample Date	06/25/2004	07/19/2004	10/14/2004	01/11/2005	05/17/2005	07/27/2005	12/20/2005	02/28/2006	05/16/2006	08/17/2006	10/17/2012	10/17/2012	06/11/2013	06/11/2013	09/09/2015	09/09/2015	10/20/2015	10/20/2015	02/11/2016	05/24/2016	08/10/2016	11/09/2016	05/26/2017	08/17/2007
			Field Sample ID	M191A1	M191A2	M191A3X	M191A4X	M191A5X	M191A6X	M191A7X	M191A8X	M191A9X	M191B1X	M191B2X	M191B2X	M191B3X	M191B3X	M191B4X	M191B4X	M191B5X	M191B5X	M191B6X	M191B7X	M191B8X	M191B9X	M191C1X	M193A1
			SDG	RFF15	RFF17	RFF30	RFF35	RFF52	952987	971917	979761	989833	1002095	RFV76		RFZ93		1592537	CP837	1606860	CP894	CQ012	CQ111	CQ234	CQ431	CQ655	1052220
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	2U	-	2U	2U	2U	2U	2U	2U	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	2U	-	2U	2U	2U	2U	2U	2U	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U	1U	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U	1U	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U	1U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	6J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	-	3U	-	3U	3U	3U	3U	3U	3U	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	-	3U	-	3U	3U	3U	3U	3U	3U	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	-	3U	-	3U	3U	3U	3U	3U	3U	-
Acetone	ug/L	N	6000	49	24	14J	6U	10J	6U	22	27	10J	22	6U	-	6U	-	-	6U	-	6U	12J	6U	6U	6U	6U	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U	1U	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Chloroform	ug/L	N	70	2J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	4J	2J	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	2U	-	2U	2U	2U	2U	2U	2U	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Ethane	ug/L	N	NS	-	-	-	-	-	2.2J	2.3J	1.9J	4.4J	100U	-	2.9	-	2.8	2.50n	-	2.10n	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	100U	-	0.1	-	0.018J	0.0030Un	-	0.0040Un	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U	1U	-
Methane	ug/L	N	NS	-	10000	10000	6200	10000	7000	6200	6700	19000	12000	-	12000	-	11000	12000.00n	-	7800.00n	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U	1U	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	2U	-	2U	2U	2U	2U	2U	2U	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U	1U	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	-	0.7U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1J	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-193	MW-193	MW-193	MW-193	MW-193	MW-193	MW-193	MW-193	MW-193	MW-193	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208
			Sample Date	10/11/2007	01/23/2008	10/16/2008	01/14/2009	05/05/2009	08/25/2009	11/24/2009	10/22/2010	09/27/2011	07/11/2013	03/08/2005	08/18/2005	03/14/2006	07/13/2006	10/27/2006	04/11/2007	09/05/2007	03/20/2008	03/20/2008	09/03/2008	03/13/2009	10/01/2009	04/08/2010	05/10/2011
			Field Sample ID	M193A2	M193A3	M193A4	M193A5	M193A6	M193A7	M193A8	M193A9X	M193B1X	M193B2X	M208A1X	M208A2X	M208A3X	M208A4X	M208A5X	M208A6X	M208A7X	D0320081	M208A8X	M208A9X	M208B1X	M208B2X	M208B3X	M208B4X
			SDG	1060617	1074539	1115428	1128343	1143633	1159245	1172692	RFS74	RFT73	RFB36	RFF41	956018	981574	997280	1011912	1033234	1054619	1082600	1082600	1108227	1136060	1164446	RFS37	RFT19
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	2U	2U	3J	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	-	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-208	MW-208	MW-208	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-211	MW-211	MW-211	MW-211
			Sample Date	07/09/2013	12/15/2015	06/13/2017	03/08/2005	08/23/2005	03/14/2006	07/13/2006	10/27/2006	04/05/2007	09/05/2007	03/20/2008	09/03/2008	03/13/2009	10/01/2009	04/08/2010	10/26/2010	05/10/2011	07/09/2013	11/25/2015	06/13/2017	02/01/2005	06/01/2005	10/27/2005	05/25/2006
			Field Sample ID	M208B5X	M208B6	M208B7	M209A1X	M209A2X	M209A3X	M209A4X	M209A5X	M209A6X	M209A7X	M209A8X	M209A9X	M209B1X	M209B2X	M209B3X	M209B4X	M209B5X	M209B6X	M209B7X	M209B8X	M211A1X	M211A2X	M211A3X	M211A4X
			SDG	RFB32	CS329	CS571	RFF41	956523	981574	997280	1011912	1032549	1054619	1082600	1108227	1136060	1164446	RFS37	RFS75	RFT19	RFB32	CS320	CS571	LNA11	RFF57	965062	991108
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	4J	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U
Acetone	ug/L	N	6000	-	-	-	6U	6U	6U	6U	6J	9J	6U	6U	6U	6U	6U	6U	6U	7J	-	-	-	7J	7J	52	21
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.8J	0.8J	0.7J	0.6J	0.5U	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.9J	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
Bromoform	ug/L	N	4	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
Chloroform	ug/L	N	70	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	-	-	-	22	11	14	7	4J	8	7	5	7	7	7	7	8	8	-	-	-	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.5U	0.5U	4J	1J	4J	0.8U	0.8U	3J	1J	1J	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	1J	0.8U	4J	2J
Isopropylbenzene	ug/L	N	700	-	-	-	1J	1U	2J	1U	1J	2J	2J	2J	1U	2J	1U	2J	1U	1J	-	-	-	53	1U	3J	10
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	15	6	8	4J	2J	3J	2J	2J	2J	3J	3J	4J	3J	4J	-	-	-	2J	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U
Styrene	ug/L	N	100	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.5U	0.5U	7	1J	1J	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	1J	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211
			Sample Date	11/07/2006	05/24/2007	12/18/2007	06/24/2008	10/30/2008	05/19/2009	11/24/2009	06/08/2010	09/23/2010	06/16/2011	03/14/2012	06/26/2013	05/22/2014	07/02/2014	08/05/2014	09/26/2014	10/30/2014	03/12/2015	03/24/2015	06/08/2015	09/16/2015	11/16/2015	12/17/2015	01/14/2016
			Field Sample ID	M211A5X	M211A6X	M211A7X	M211A8X	M211A9X	M211B1X	M211B2X	M211B3X-100608	M211B4X	M211B5X	M211B6X	M211B7X	M211B8	M211B9X	M211C1X	M211C2	M211C3	M211C4X	M211C5	M211C6	M211C7	M211C8	M211C9X	M211D1
			SDG	1013229	1039857	1070340	1097656	1117661	1145500	1172674	RFS46	RFS68	RFT33	RFU20	CP018	CS103	CP401	CP466	CS162	CS179	CP667	CS212	CS248	CS285	CS316	CP978	CS343
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5UJ
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	20U	2U	2U	2U	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	10U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	20U	2U	2U	2U	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	10U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	30U	3U	3U	3U	-	-	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	15U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	30U	3U	3U	3U	-	-	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	15U	3U	3UJ
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	30U	3U	3U	3U	-	-	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	15U	3U	3UJ
Acetone	ug/L	N	6000	18J	15J	10J	8J	6U	60U	12J	11J	11J	-	-	6U	6U	14J	13J	6U	6U	6J	9J	6U	26J	30U	12J	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5J	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.6J	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	20U	2U	2U	2U	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	4J	2U	10U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	20U	2U	2U	2U	-	-	2U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	34	30	52	3J	16	10U	22	11	7	-	-	27	38	5J	11J	1U	1U	24	24	39	7	5U	32	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	-	-	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1J	1U	1U	1UJ	1U	1U	1U	1U	1J	1U	5U	1J	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	20U	2U	2U	2U	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	10U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.6J	0.5U	0.6J	0.5U	3U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	20U	2U	2U	2U	-	-	2U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.9J	1J	0.6J	0.8J	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.7J	0.5U	3U	0.6J	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	290	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	260	-	-	110J	-	-	220	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-211	MW-211	MW-211	MW-211	MW-211	MW-213	MW-213	MW-213	MW-213	MW-213	MW-213	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214
			Sample Date	04/08/2016	07/22/2016	12/08/2016	01/19/2017	04/18/2017	01/29/2013	05/09/2013	07/10/2013	12/13/2013	10/19/2017	01/10/2018	04/23/2012	04/23/2012	06/21/2012	11/14/2012	05/10/2013	07/03/2013	10/17/2013	12/18/2013	03/31/2014	07/11/2014	09/10/2014	03/10/2015	04/22/2015
			Field Sample ID	M211D2	M211D3	M211D4	M211D5	M211D6	M213A2X	M213A3X	M213A4X	M213A5X	M213C2X	M213C3X	D0423123	M214A1X	M214A2X	M214A3X	M214A5X	M214A6X	M214A7X	M214A8X	M214A9X	M214B1X	M214B2X	M214B3X	M214B4X
			SDG	CS383	CS434	CS492	CS501	CS545	RFX41	RFZ32	CP039	CP239	CQ829	CQ936	RFU48	RFU48	RFU90	RFX05	RFZ38	CP033	CP150	CP243	CP291	CP411	CP498	CP664	CP690
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	40U	40U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	1UJ	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	40U	40U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	50U	50U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	1U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	40U	40U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	100U	100U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	50U	50U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	50U	50U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	100U	100U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	50U	50U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	50U	50U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	50U	50U	8	2J	0.5U	0.5UJ	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	50U	50U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	50U	50U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1J	1J	2J	2J	50U	50U	1J	1J	1J	1J	1J	1J	1J
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	5J	3UJ	6U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	150U	150U	60	7J	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3UJ	6U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	150U	150U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3UJ	6U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	150U	150U	4J	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	12U	6U	6U	6UJ	6U	6U	6U	6U	6U	6U	6U	6U	300U	300U	170	34	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	6	6	5	4J	25U	34J	47	38	29	18	16	18	21
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	50U	50U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5UJ	1U	1U	1U	1U	50U	50U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5UJ	0.5U	0.5U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	50U	50UJ	5J	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Carbon disulfide	ug/L	N	700	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	50U	50U	35	16	3J	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	50U	50U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	1U	0.5U	1J	2J	0.8U	2J	0.5U	0.5U	6	6	6	7	40U	40U	4J	4J	4	4	4	4	3
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	50U	50UJ	11	3J	1	0.6J	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	1U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	40U	40U	5	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	50U	50U	18	1U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	1U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	40U	40U	2J	1J	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	50U	50U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	2U	2UJ	4U	2U	2U	2U	2U	2U	2U	2U	17	16	24	34	100U	100U	27	19	28	3J	7	5J	2J
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	50U	50U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	1U	0.5U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	100U	100U	2U	2U	0.5UJ	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	1U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	40U	40U	1J	2J	1	0.7J	1	2	1J
Isopropylbenzene	ug/L	N	700	2J	1U	1U	2U	7	1J	2J	1U	2J	1U	1U	25	24	28	27	50U	50U	8	12	16	11	6	9	7
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	50U	50U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.6J	0.6J	0.7J	0.8J	25U	25U	0.7J	0.6J	0.7J	1J	1	0.9J	0.6J
Methylcyclohexane	ug/L	N	100	1U	1UJ	1J	2U	1U	1J	2J	1U	1J	1U	1U	94	97	100	97	50U	50U	57	52	64	12	9	13	7
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2UJ	4U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	100U	100U	3J	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	50U	50U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	40U	40U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	1U	0.5U	0.7U	0.7U	0.7U	0.8J	0.5U	0.5U	0.7J	0.7J	0.7J	1J	35U	35U	5	4J	2	2	1	1	2
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	1U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	40U	40U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	50U	50U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	50U	50U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	1U	0.5U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	100U	100U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	50U	50U	1J	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	1U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	6	6	6	8	40U	40U	7	11	9	5	5	9	6
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	180	-	-	-	-	-	-	51	20U	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	530	-	1000U	-	500	680J+	340	320	470	360

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-214	MW-214R	MW-214R	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221
			Sample Date	07/23/2015	10/19/2017	01/11/2018	04/23/2012	06/20/2012	06/20/2012	11/14/2012	05/13/2013	07/02/2013	10/15/2013	12/16/2013	03/31/2014	07/16/2014	09/11/2014	01/14/2015	04/22/2015	07/23/2015	01/09/2006	01/24/2006	05/18/2006	08/24/2006	06/03/2008	07/29/2009	09/15/2011
			Field Sample ID	M214B5X	M214RC4	M214RC5X	M215A1X	D0620123	M215A2	M215A3X	M215A5X	M215A6X	M215A7X	M215A8X	M215A9X	M215B1X	M215B2X	M215B3X	M215B4X	M215B5X	M221A1	M221A2X	M221A3X	M221A4X	M221A6X	M221A7X	M221A8X
			SDG	CP791	CQ819	CQ938	RFU48	RFU88	RFU88	RFX05	RFZ39	CP028	CP143	CP240	CP291	CP415	CP502	CP636	CP690	CP791	974021	975512	990164	1003077	1094221	1155531	RFT68
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	4J	3J	3J	2J	2J
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	3J	1J	2J	0.8J	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	13	8	7	5J	1J	3J	7	4J	5J	1J	3J	2J	1U	4J	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1J	1U	1U	26	16	14	9	2J	5	14	7	9	2J	6	3J	2J	8	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	7J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3J	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	7J	6U	12J	30	8J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	16	0.5J	0.5U	0.8J	1J	1J	3J	2J	3J	2J	2J	1	0.9J	2	1	0.5U	2	0.5U	0.5U	0.5U	0.6J	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1UJ	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	2J	1U	1U	1U	12	5J	1U	1U	1U	1U	1U	1U	1U	1J	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5UJ	0.5UJ	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	4	2	1	69	71	68	57	43	87	65	78	62	25	42	38	15	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1J	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	1J	2J	2J	1	0.5U	0.9J	0.8J	0.5U	0.6J	190	110	1700	880	1100	640	470
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	3J	2J	3J	2U	2J	4UJ	4J	2U	3J	2J	2U	2J	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5UJ	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Ethylbenzene	ug/L	N	700	0.9J	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	8	1U	1U	11	11	10	12	10	9	9	9	8	7	7	6	6	9	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	8.0	8.3	8.6	25	62
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.6J	1J	2J	3J	2J	2J	4J
Methylcyclohexane	ug/L	N	100	4J	1U	1U	6	5	4J	9	4J	3J	6	4J	4J	4J	5J	4J	4J	5J	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	1	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	1J	8	6	5	5J	5J
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	41	35	320	200	230	140	77
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5J	0.5U	0.5U	0.5U	4J	3J	9	9	6	12	32
Xylene (total)	ug/L	N	1000	5	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5J	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	65	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	280	-	-	-	-	-	320J	-	370	-	250	240J+	140	220	380	150	220	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-221	MW-221	MW-221	MW-221	MW-221	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-224	MW-224	MW-224	MW-224	MW-224	MW-224
			Sample Date	06/21/2012	08/30/2013	08/14/2014	04/26/2016	06/20/2017	01/09/2006	01/24/2006	05/18/2006	08/24/2006	06/03/2008	07/29/2009	08/12/2010	09/15/2011	06/21/2012	08/29/2013	08/14/2014	04/26/2016	06/20/2017	11/23/2005	12/08/2005	03/02/2006	05/22/2006	08/22/2006	10/04/2007
			Field Sample ID	M221B1X	M221B2X	M221B3X	M221B4X	M221B5X	M222A1	M222A2X	M222A3X	M222A4X	M222A6X	M222A7X	M222A8X	M222A9X	M222B2X	M222B3X	M222B4X	M222B5X	M222B6X	M224A1	M224A2X	M224A3X	M224A4X	M224A5X	M224A6X
			SDG	RFU87	CS003	CS142	CS391	CS575	974021	975512	990164	1003077	1094221	1155531	RFS63	RFT68	RFU87	CS002	CS142	CS391	CS575	968826	970442	980099	990703	1002619	1059557
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	3J	3J	2	2	2	17	15	14	15	7	11	12	13	14	10J	15	8	9	0.8U	0.8U	0.8U	0.8U	0.8U	0.9J
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.5U	1U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	2J	0.8J	0.5J	0.7J	0.7J	2J	2J	2J	2J	1J	2J	2J	2J	2J	2U	1	1J	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	4U	2U	4U	2U	2U	4U	2U	2U	4U	2U	4U	4U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	1U	2U	2U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	4U	2U	4U	2U	2U	4U	2U	2U	4U	2U	4U	4U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	1U	2U	2U	2J	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	1U	2U	2U	1J	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	1U	2U	2U	2J	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	6U	3U	6U	3U	3U	6U	3U	3U	6U	3U	6U	6U	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	6U	3U	6U	3U	3U	6U	3U	3U	6U	3U	6U	6U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	6U	3U	6U	3U	3U	6U	3U	3U	6U	3U	6U	6U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	12U	6U	12U	6U	6U	12U	6U	6U	12U	6U	12U	12U	14J	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.7J	0.5J	0.5J	0.5J	0.5J	4J	3J	2J	2J	0.9J	2J	2J	2J	2J	2J	3	2J	2J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	7	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1J	2U	1U	2U	1U	1U	2U	1U	1U	2U	1U	2U	2U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.5U	1U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.5U	0.5U	0.5U	1J	2U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.5U	1U	1U	28	7	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	820	770	660	710	760	1600	1500	1300	1200	1100	1400	1700	1700	1900	1700	2100	1600	1300	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	9	17	16	16	2U	8	4J	6	12	5J	7	4U	4U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	2J	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	0.5U	0.5U	0.5U	2U	4U	2U	4U	2U	2U	4U	2U	2U	4U	0.5U	1U	1U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	1.0U	1.0U	1.0U	1.0U	1.0U	-	2.3J	1.1J	1.0J	1.0U	1.3J	1.4J	1.2J	1.2J	1.8J	2.0J	1.9J	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U
Ethene	ug/L	N	NS	1.0U	1.0U	1.0U	1.0U	1.0U	-	3.7J	1.1J	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.5U	1U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	1U	2U	2U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	14J	24	11	12	3.0U	-	51	33	25	6.4	29	25	22	38	32	26	29	4.4J	-	7.7	19	16	30	52
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	1U	2U	2U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	3J	3J	2	1	2	0.9J	1U	1J	1U	0.5J	0.9J	1U	0.8J	0.9J	1U	0.7J	1U	1U	6	16	21	19	19	19
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	3J	8J	5J	4J	2J	1U	2U	1J	3J	2U	1U	2U	2U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	4U	2U	4U	2U	2U	4U	2U	2U	4U	2U	4U	4U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	1U	2U	2U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.5U	1U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U	1U	0.7U	1U	0.7U	0.7U	1U	0.7U	0.7U	1U	0.5U	1U	1U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	7	7	11	5	7	11	16	9	10	6	9	10J	10	14	8J	14	8	10	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	160	290	210	210J	190	1900	1800	1300	1200	480	830	1000	1100	840	770	1100	760J	670	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	0.5U	0.5U	0.5U	2U	4U	2U	4U	2U	2U	4U	2U	2U	4U	0.5U	1U	1U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	34	25	21	20	29	37	43	44	31	31	35	41	43	53	29	37	35	21	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.5U	1U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-224	MW-224	MW-225	MW-225	MW-225	MW-225	MW-225	MW-225	MW-225	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-227	MW-227	MW-227
			Sample Date	06/10/2008	09/15/2009	11/23/2005	12/08/2005	03/02/2006	05/18/2006	08/22/2006	06/10/2008	09/15/2009	11/23/2005	12/08/2005	03/02/2006	05/18/2006	08/22/2006	06/10/2008	09/15/2009	08/12/2010	09/15/2011	06/21/2012	08/30/2013	08/14/2014	01/11/2006	07/11/2006	08/16/2006
			Field Sample ID	M224A7X	M224A8X	M225A1	M225A2X	M225A3X	M225A4X	M225A5X	M225A7X	M225A8X	M226A1	M226A2X	M226A3X	M226A4X	M226A5X	M226A7X	M226A8X	M226A9X	M226B1X	M226B3X	M226B4X	M226B5X	M227A1	M227A2	M227A3
			SDG	1095466	1161893	968826	970442	980532	990164	1002620	1095396	1161893	968826	970442	980532	990164	1002620	1095396	1161893	RFS63	RFT68	RFU87	CS003	CS142	974018	996874	1001891
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	360	2700	11000
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	-
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2J	5	5J	2J	2J	0.8U	5J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	-
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	-	-	-
Ethane	ug/L	N	NS	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-
Ethene	ug/L	N	NS	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	17	54	300J
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Methane	ug/L	N	NS	18	25	-	2.0U	2.0U	2.0U	2.0U	2.0U	5.0J	-	18	6.3	8.0	7.6	11	19	11J	5.0J	5.7J	3.0U	3.0U	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Methyl-t-butyl ether	ug/L	N	70	19	17	0.8J	0.7J	3J	6	6	55	22	300	370	270	230	140	47	51	8	17	11	2J	2	-	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	34	15	1300
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	18	7	6	2J	9	1U	1J	1U	1U	1U	1U	0.5U	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	100	43	2200
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227R	MW-227R	MW-227R	MW-228	MW-228	MW-228
			Sample Date	10/25/2006	12/19/2006	02/20/2007	07/12/2007	10/11/2007	01/23/2008	09/05/2008	10/14/2008	01/14/2009	05/06/2009	08/24/2009	08/24/2009	11/24/2009	11/24/2009	10/22/2010	09/27/2011	05/08/2012	07/12/2013	11/25/2015	05/19/2016	06/14/2017	01/12/2006	07/11/2006	10/24/2006
			Field Sample ID	M227A4	M227A5	M227A6	M227A7	M227A8	M227A9	M227B1X	M227B2	M227B3	M227B4	D0824093	M227B5	D1124093	M227B6	M227B7X	M227B8X	M227B9X	M227C1X	M227RA1	M227RA2X	M227RA3X	M228A1	M228A2	M228A3
			SDG	1011503	1018856	1026191	1046717	1060617	1074539	1108739	1115235	1128343	1143633	1159245	1159245	1172692	1172692	RFS74	RFT73	RFU54	RFB37	CS320	CS403	CS572	974193	996874	1011503
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3100	2400	4000	7500	2200	290	450	470	120	100	12	14	14	16	19	25	170	140	82	59	2	190	2J	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	95	110	200	620	110	26	29	25J	8	13	13	15	6	7	0.8U	1J	19	6	0.8J	3U	0.5U	7	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	-	2J	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	-	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	ug/L	N	600	970	200	130	370	180	2J	7	7U	0.7U	0.7U	0.9J	1J	0.7U	0.7U	0.7U	0.9J	8	3J	0.5U	3U	0.5U	2J	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	3300	830	920	2200	770	170	32	37J	1J	1J	3J	4J	1J	2J	2J	2J	19	13	0.5U	3U	0.5U	9	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229
			Sample Date	12/19/2006	02/19/2007	07/12/2007	10/11/2007	01/23/2008	09/05/2008	10/14/2008	01/15/2009	05/06/2009	08/25/2009	11/25/2009	10/26/2010	09/29/2011	05/08/2012	07/09/2013	12/19/2014	01/12/2006	07/10/2006	10/24/2006	12/18/2006	02/19/2007	07/11/2007	10/10/2007	01/22/2008
			Field Sample ID	M228A4	M228A5	M228A6	M228A7	M228A8	M228A9X	M228B1	M228B2	M228B3	M228B4	M228B5	M228B6X	M228B7X	M228B8X	M228B9X	M228C1X	M229A1	M229A2	M229A3	M229A4	M229A5	M229A6	M229A7	M229A8
			SDG	1018856	1026191	1046717	1060617	1074539	1108739	1115235	1128343	1144083	1159245	1172913	RFS75	RFT74	RFU54	RFB32	CS193	974193	996874	1011503	1018856	1026191	1046717	1060372	1074539
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	5	3J	7	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U	1J	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	3J	0.8U	0.8U	0.5U	2J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-234R	MW-234R	MW-234R
			Sample Date	09/05/2008	10/16/2008	01/14/2009	05/05/2009	08/26/2009	11/25/2009	10/26/2010	09/29/2011	07/09/2013	05/23/2006	07/07/2006	06/05/2008	09/02/2009	07/29/2010	08/23/2011	06/13/2012	08/06/2013	08/12/2014	12/03/2015	04/28/2016	06/15/2017	07/26/2013	07/03/2014	08/01/2014
			Field Sample ID	M229A9X	M229B1	M229B2	M229B3	M229B4	M229B5	M229B6X	M229B7X	M229B8X	M230A1X	M230A2X	M230A3X	M230A4X	M230A5X	M230A6X	M230A7X	M230A8X	M230A9X	M230B1X	M230B2X	M230B3X	M234RA1X	M234RA2X	M234RA3X
			SDG	1108739	1115428	1128343	1143633	1159433	1172913	RFS75	RFT74	RFB32	990703	996484	1094772	1160329	RFS60	RFT62	RFU82	RFB82	CS140	CS323	CS392	CS573	CP054	CP404	CP441
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	450	510	520	30	120	92	300	14	1400	1700	1400	650	0.8U	0.5U	0.5UJ
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	-	1400	1500	1500	37	180	150	610	21	5300	5000	5300	2200	0.8U	0.5U	0.5UJ
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	-	2J	2J	2U	0.8U	0.8U	0.8U	1J	0.8U	3J	5U	5U	1	0.8U	0.5U	0.5UJ
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	-	2U	2U	4U	2U	2U	2U	2U	2U	10U	20U	20U	2U	2U	2U	2UJ
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	-	120	120	120	11	33	39	130	7	890	1000	920	590	1U	0.5U	0.5UJ
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1UJ
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	-	2U	2U	4U	2U	2U	2U	2U	2U	10U	20U	20U	2U	2U	2U	2UJ
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1UJ
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	-	1J	1J	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.7J	1U	0.5U	0.5UJ
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1UJ
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1UJ
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	-	3U	3U	6U	3U	3U	3U	3U	3U	15U	30U	30U	7J	3J	3J	3UJ
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	-	3U	3U	6U	3U	3U	3U	3U	3U	15U	30U	30U	3U	3U	3U	3UJ
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	-	3U	3U	6U	3U	3U	3U	3U	3U	15U	30U	30U	3U	3U	3U	3UJ
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	-	6U	6U	12U	6U	6U	17J	6U	6U	30U	60U	60U	6U	7J	6J	6UJ
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	1J	1J	0.5U	0.5U	0.5U	0.6J	0.5U	3U	5U	5U	0.6J	36	43	45J
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1UJ	5U	10U	10U	1U	1U	1U	1UJ
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	-	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	3U	5U	5U	0.5U	0.8U	0.5U	0.5UJ
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	-	2J	2J	2J	1U	2J	1U	1J	1U	18	31	28J	8	1U	0.5U	0.5UJ
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	-	0.9J	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	3U	5U	5U	0.5J	0.8U	0.5U	0.5UJ
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	6J	0.5U	1U	0.5U	0.5UJ
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	-	5J	4J	3J	3J	3J	2J	2J	0.8U	7	23	26	9	0.8U	0.5U	0.5UJ
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	2U	2U	4U	2U	2U	2U	2U	2U	10U	20U	20U	2U	28	53	52J
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	-	2U	2U	4U	2U	2U	2U	2U	2U	3U	5U	5U	0.5U	2U	0.5U	0.5UJ
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	2.1J	1.0U	1.0U	7.0U	1.0U	1.0U	1.0U	1.0U	4.3J	5.7	4.6J	2.4J	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.7J	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	3U	5U	5U	0.5U	50	30	26J
Isopropylbenzene	ug/L	N	700	-	-	-	7	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	12	28	28J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	160	86	120	340	120	170	190	470	470	680	590	300	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1UJ
Methyl-t-butyl ether	ug/L	N	70	-	-	-	0.5U	-	-	-	-	-	45	52	18	4J	4J	2J	3J	0.5U	3U	5U	5U	0.7J	0.5U	0.5U	0.5UJ
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	30	73	76J
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	-	4J	4J	4J	2U	2U	2U	2U	2U	10U	20U	20U	2U	2U	2U	2UJ
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1UJ
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	6	8	7J	0.8U	2J	2J	4J	0.8U	19	26	21	5	0.8U	0.5U	0.5UJ
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	1U	0.7U	0.7U	0.7U	0.7U	0.7U	3U	5U	5U	0.5U	20	49	46J
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	-	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	3U	5U	5U	0.5U	0.8U	0.5U	0.5UJ
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	0.5U	0.5UJ
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	120	100	75	50	81	45	53	5J	130	150	110	30	1U	0.5U	0.5UJ
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	-	2U	2U	4U	2U	2U	2U	2U	2U	3U	5U	5U	0.5U	2U	0.5U	0.5UJ
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	2J	2J	2J	2J	2J	2J	2J	1U	13	15	14	3	1U	0.5U	0.5UJ
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	3U	5U	5U	0.5U	200	370	390J
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2500	-	3600J

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235
			Sample Date	08/29/2014	01/16/2015	09/18/2015	11/19/2015	12/15/2015	01/13/2016	04/14/2016	07/25/2016	12/06/2016	01/23/2017	03/22/2017	04/28/2017	05/17/2017	02/07/2007	09/05/2007	02/29/2008	08/26/2008	02/20/2009	10/06/2009	03/22/2011	10/05/2011	06/27/2012	09/05/2012	05/10/2013
			Field Sample ID	M234RA4X	M234RA5X	M234RA6	M234RA7	M234RA8X	M234RA9	M234RB1	M234RB2	M234RB3	M234RB4	M234RB6X	M234RB7	M234RB8X	M235A1X	M235A2X	M235A3X	M235A4X	M235A5X	M235A6X	M235A7X	M235A8X	M235A9X	M235B1X	M235B2X
			SDG	CS149	CP644	CS287	CS319	CP969	CS342	CS386	CS435	CS491	CS503	CQ561	CS552	CQ641	1024756	1054619	1079626	1107202	1133129	1165120	RFT01	RFT75	RFU93	RFV35	RFZ36
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	4J	3U	3J	3UJ	3U	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3UJ	3UJ	3U	3UJ	3U	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3UJ	3UJ	3U	3U	3U	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	-	-	-	-
Acetone	ug/L	N	6000	6U	6U	7J	6U	7J	6U	6U	6U	6J	6U	-	6U	-	6U	6U	6U	6U	6U	6U	6U	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	57	47	28	53	54	50	64	89	140	140	110	110	120	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Cyclohexane	ug/L	N	100	53	44	10	32	35	35	28	24	40	33	-	30	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
Dibromochloromethane	ug/L	N	1	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	-	0.5UJ	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	22	24	5	11	13	12	12	12	14	13	-	16	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	26	26	9	15	19	16	16	16	14	19	-	23	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1UJ	1U	1U	1UJ	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Methylcyclohexane	ug/L	N	100	66	58	13	34	45	37	31	32	52	41	-	36	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
Toluene	ug/L	N	600	56	55	20	42	61	38	80	110	72	74	-	75	-	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Xylene (total)	ug/L	N	1000	330	320	84	160	170	130	150	120	120	110	-	110	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	2200	-	-	-	2800J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	2500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236
			Sample Date	10/02/2013	08/12/2014	11/05/2014	07/15/2015	08/31/2017	02/15/2018	02/07/2007	08/30/2007	02/05/2008	08/26/2008	02/27/2009	10/13/2009	03/05/2010	09/07/2010	03/22/2011	09/27/2011	05/03/2012	09/05/2012	05/10/2013	10/04/2013	11/06/2013	11/05/2014	03/16/2015	06/30/2015
			Field Sample ID	M235B3X	M235B4X	M235B5X	M235B6X	M235C1X	M235C2X	M236A1X	M236A2X	M236A3X	M236A4X	M236A5X	M236A6X	M236A7X	M236A8X	M236A9X	M236B1X	M236B2X	M236B3X	M236B4X	M236B6X	M236B7X	M236C1X	M236C2	M236C3
			SDG	CS020	CS140	CS181	CS261	CS597	CS647	1024756	1054028	1076059	1107202	1134114	1166229	RFS32	RFS66	RFT01	RFT73	RFU52	RFV35	RFZ36	CS023	CP188	CS181	CP668	CP765
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	0.5U	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	0.5U	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	0.5U	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	0.5U	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	0.5U	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	10	3U	3U	3U	4J	3U	7J	3U	7J	3U	3U	3U	20	3U	3U	3U	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	6U	3U	3U	3U	3U	3U	3U	3U	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	6U	3U	3U	3U	3U	3U	3U	3U	-	-
Acetone	ug/L	N	6000	-	-	-	-	-	-	53	6U	6U	6U	8J	6U	6U	6U	20J	6U	6U	6U	20J	6U	6U	6U	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	13	0.5U	1J	0.5U	13	0.5U	28	0.5U	22	0.5U	0.5U	0.5U	3J	0.5U	0.5U	1	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	0.5U	-	-
Bromoform	ug/L	N	4	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	0.5U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	0.5U	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	0.5U	-	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	0.5U	-	-
Chloroform	ug/L	N	70	-	-	-	-	-	-	5J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	0.5U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	0.5U	-	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	45	2U	3J	2U	52	2U	48	2U	77	2U	2U	2U	36	2U	6	3J	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	0.5U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	0.5U	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	100	0.8U	2J	0.8U	46	0.8U	68	0.8U	71	0.8U	0.8U	0.8U	11	0.8U	0.8U	0.5U	-	-
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	220	1U	12	1U	240	2J	270	6	430	1U	1U	1J	210	1U	34	14	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14000	15000
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	57	1U	2J	1U	42	1U	30	2J	58	1U	1U	1U	48	1U	4J	4J	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	-	-
Styrene	ug/L	N	100	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-
Toluene	ug/L	N	600	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	4J	0.7U	0.7U	0.7U	4J	0.7U	4J	0.7U	5J	0.7U	0.7U	0.7U	3J	0.7U	0.7U	0.5U	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	0.5U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	0.5U	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	0.5U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	0.5U	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	8	0.8U	0.8U	0.8U	6	0.8U	3J	0.8U	3J	0.8U	0.8U	0.8U	4J	0.8U	0.8U	0.5U	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	480	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-236	MW-236	MW-236	MW-236	MW-236	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241
			Sample Date	07/10/2015	10/06/2015	08/31/2017	08/31/2017	02/15/2018	12/07/2006	05/16/2007	12/06/2007	08/15/2008	10/30/2008	06/11/2009	11/19/2009	04/29/2010	09/21/2010	08/04/2011	11/22/2011	03/27/2012	08/09/2012	04/04/2013	09/26/2013	06/19/2014	11/12/2014	06/30/2015	02/02/2016
			Field Sample ID	M236C4X	M236C5	D0831171	M236D3X	M236D4X	M241A1X	M241A2X	M241A3X	M241A4X	M241A5X	M241A6X	M241A7X	M241A8X	M241A9X	M241B1X	M241B2X	M241B3X	M241B4X	M241B5X	M241B6X	M241B7X	M241B8X	M241B9X	M241HS
			SDG	CS259	CP860	CS597	CS597	CS647	1017222	1038619	1068622	1105739	1117661	1148815	1171988	RFS40	RFS68	RFT50	RFT88	RFU30	RFV27	RFY53	CS016	CS114	CS184	CS256	CS349
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	-	3UJ	3UJ	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	-	6U	6U	7J	6U	7J	6U	6J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5UJ
Carbon disulfide	ug/L	N	700	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.5U	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5UJ
Chloroform	ug/L	N	70	0.5U	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	-	2U	2U	3J	4J	4J	5	6	2U	4J	6	4J	6	6	2J	6	5	5	3J	6	6	3J	6
Dibromochloromethane	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	-	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	-	0.5U	0.5U	0.7J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	6	-	1U	1U	49	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	14000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	0.5U	0.5U	0.5U	10	9	14	12	11	10	10	9	11	9	7	9	8	5J	5	4	7	5	5
Methylcyclohexane	ug/L	N	100	1J	-	1U	1U	3J	1J	1U	1J	1J	1U	1U	1J	1J	1J	2J	1U	1J	1J	1J	1J	1U	1U	1U	1J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.5U	-	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	-	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	0.5U	-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-241	MW-241	MW-241	MW-241	MW-241	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-246	MW-246	MW-246	MW-246	MW-246
			Sample Date	02/18/2016	08/16/2016	02/15/2017	08/22/2017	03/01/2018	03/01/2007	08/28/2007	02/05/2008	09/16/2008	03/05/2009	10/07/2009	04/13/2010	10/22/2010	02/08/2011	09/27/2011	05/03/2012	08/31/2012	10/04/2013	02/07/2018	02/07/2007	08/30/2007	11/20/2007	02/07/2008	09/18/2008
			Field Sample ID	M241C1X	M241C2X	M241C3X	M241C4X	M241C5X	M245A1X	M245A2X	M245A3X	M245A4X	M245A5X	M245A6X	M245A7X	M245A8X	M245A9X	M245B1X	M245B2X	M245B3X	M245B4X	M245D1X	M246A1X	M246A2X	M246A3X	M246A4X	M246A5X
			SDG	CS359	CS441	CS514	CS592	CS655	1027541	1053581	1076059	1110464	1134810	1165407	RFS38	RFS74	RFS84	RFT73	RFU52	RFV33	CS023	CS642	1024756	1054028	1066488	1076506	1110903
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3J	3U	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6UJ	6U	6U	6U	6U	11J	14J	6U	9J	6U	6U	6U	6U	6U	6U	11J	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5J	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2J	3J	4J	3J	4J	5J	2U	4J	5J	5J	3J	2U	2U	12	2U	2U	2U	4J	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5UJ	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	2J	1J	1U	1U	1U	1U	3J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	4	5	4	4	4	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1J	1U	1U	8	5	18	5J	5	4J	8	8	23	9	4J	7	2J	2J	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5UJ	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	2J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246R	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247
			Sample Date	04/14/2009	09/29/2009	04/06/2010	09/07/2010	04/29/2011	09/29/2011	06/06/2012	08/31/2012	05/10/2013	11/06/2013	01/08/2014	06/10/2014	07/20/2015	10/28/2015	12/07/2017	02/16/2007	08/28/2007	11/20/2007	02/15/2008	09/17/2008	03/13/2009	10/01/2009	04/08/2010	05/10/2011
			Field Sample ID	M246A6X	M246A7X	M246A8X	M246A9X	M246B1X	M246B2X	M246B3X	M246B4X	M246B5X	M246B6X	M246B7X	M246B8X	M246B9X	M246C1X	D1207178A	M247A1X	M247A2X	M247A3X	M247A4X	M247A5X	M247A6X	M247A7X	M247A8X	M247A9X
			SDG	1140444	1163942	RFS37	RFS66	RFT15	RFT74	RFU79	RFV33	RFZ36	CP188	CP251	CS110	CP786	CP907	CQ919	1025917	1053581	1066488	1077812	1110669	1136060	1164446	RFS37	RFT19
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6UJ	6U	6U	6U	7J	6U	8J	6U	6U	6U	6U	6U	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	32	0.5U	0.5U	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5UJ	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	6	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5UJ	0.5U	0.8J	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5UJ	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	12	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20U	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	20U	20U	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-247	MW-247	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248R	MW-248R	MW-248R	MW-248R	MW-248R	MW-248R	MW-248R	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249
			Sample Date	05/25/2012	07/10/2013	02/09/2007	08/28/2007	02/15/2008	09/16/2008	03/11/2009	09/23/2009	09/02/2010	03/18/2011	10/25/2011	09/07/2012	07/03/2013	09/30/2014	10/02/2015	02/20/2007	08/28/2007	02/15/2008	09/16/2008	03/11/2009	09/24/2009	03/05/2010	09/02/2010	03/18/2011
			Field Sample ID	M247RA4X	M247B2X	M248A1X	M248A2X	M248A3X	M248A4X	M248A5X	M248A6X	M248RA1X	M248RA2X	M248RA3X	M248RA5X	M248RA6X	M248RA7X	M248RA8X	M249A1X	M249A2X	M249A3X	M249A4X	M249A5X	M249A6X	M249A7X	M249A8X	M249A9X
			SDG	RFU74	RFB33	1025114	1053581	1077812	1110464	1135630	1163168	RFS65	RFS99	RFT81	RFV38	RFB29	CS163	CS294	1026729	1053581	1077812	1110464	1135630	1163395	RFS32	RFS65	RFS99
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	-	-	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-249	MW-249	MW-249	MW-249	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250
			Sample Date	05/25/2012	07/03/2013	06/11/2014	10/02/2015	02/16/2007	05/22/2007	08/23/2007	11/20/2007	01/31/2008	09/23/2008	10/29/2008	05/11/2009	09/01/2009	12/03/2009	04/08/2010	07/20/2010	10/05/2010	02/15/2011	05/11/2011	08/10/2011	12/19/2012	04/30/2013	10/07/2014	11/22/2017
			Field Sample ID	M249B1X	M249B2X	M249B3X	M249B4X	M250A1X	M250A2X	M250A3X	M250A4X	M250A5X	M250A6X	M250A7	M250A8X	M250A9	M250B1	M250B2	M250B4X-100720	M250B4	M250B6X	M250B7	M250B8X	M250C1X	M250C2X	M250C3X	M250C7X
			SDG	RFU74	RFB29	CS111	CS294	1025917	1039429	1053010	1066488	1075579	1111596	1117434	1144240	1160143	1173658	GWC54	RFS55	RFS70	RFS87	RFT20	RFT55	RFX25	RFZ22	CS166	CQ901
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	0.8U	4U	4U	8U	4U	2U	-	8U	-	-	-	-	-	-	-	-	4U	-	-	0.5U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	0.8U	4U	4U	8U	4U	2U	-	8U	-	-	-	-	-	-	-	-	4U	-	-	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	0.5U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	0.8U	4U	4U	8U	4U	2U	-	8U	-	-	-	-	-	-	-	-	4U	-	-	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	2U	10U	10U	20U	10U	4U	-	20U	-	-	-	-	-	-	-	-	10U	-	-	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	2U	10U	10U	20U	10U	4U	-	20U	-	-	-	-	-	-	-	-	10U	-	-	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	1U
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	0.5U
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	10	17J	25J	56J	15U	6U	-	30U	-	-	-	-	-	-	-	-	45J	-	-	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	3U	15U	15U	30U	15U	6U	-	30U	-	-	-	-	-	-	-	-	15U	-	-	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	3U	15U	15U	30U	15U	6U	-	30U	-	-	-	-	-	-	-	-	15U	-	-	3U
Acetone	ug/L	N	6000	-	-	-	-	16J	100	170	230	94J	26J	-	170J	-	-	-	-	-	-	-	-	130	-	-	22
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	180	5800	8000	6500	4200	760	6600	6500	5600	1400	6000	5200	5300	1600	6000	5800	3900	4400	2700	1900
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	4J	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	0.5U
Bromoform	ug/L	N	4	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	0.5U
Carbon disulfide	ug/L	N	700	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	1U
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	0.5U
Chlorobenzene	ug/L	N	50	-	-	-	-	0.8U	4U	4U	8U	4U	2U	-	8U	-	-	-	-	-	-	-	-	4U	-	-	0.5U
Chloroethane	ug/L	N	5	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	0.5U
Chloroform	ug/L	N	70	-	-	-	-	20	4U	4U	8U	4U	2U	-	8U	-	-	-	-	-	-	-	-	4U	-	-	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	0.8U	4U	4U	8U	4U	2U	-	8U	-	-	-	-	-	-	-	-	4U	-	-	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	0.5U
Cyclohexane	ug/L	N	100	-	-	-	-	58	340	500	340	250	54	-	410	-	-	-	460	-	190	-	490	430	440	290	220
Dibromochloromethane	ug/L	N	1	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	2U	10U	10U	20U	10U	4U	-	20U	-	-	-	-	-	-	-	-	10U	-	-	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.5U	0.5U	0.8U	4J	6J	8U	4U	2J	16U	8U	8U	2U	8U	4U	4J	2U	4U	4U	4U	4U	3U	69
Isopropylbenzene	ug/L	N	700	-	-	-	-	1U	5U	5J	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	9
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	2J	8J	7J	5U	4J	1U	-	5U	-	-	-	-	-	-	-	-	3U	-	-	0.6J
Methylcyclohexane	ug/L	N	100	-	-	-	-	23	140	160	130	100	18	-	170	-	-	-	-	-	-	-	-	170	-	-	86
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	2U	10U	10U	20U	10U	4U	-	20U	-	-	-	-	-	-	-	-	10U	-	-	0.5U
Styrene	ug/L	N	100	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	1U
Tetrachloroethene	ug/L	N	1	-	-	-	-	0.8U	4U	4U	8U	4U	2U	-	8U	-	-	-	-	-	-	-	-	4U	-	-	0.5U
Toluene	ug/L	N	600	0.7U	0.7U	0.5U	0.5U	0.7U	43	76	55	46	9J	72J	59	58	8J	38J	39	34	9J	35	32	24J	30	14	21
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	0.8U	4U	4U	8U	4U	2U	-	8U	-	-	-	-	-	-	-	-	4U	-	-	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	2U	10U	10U	20U	10U	4U	-	20U	-	-	-	-	-	-	-	-	10U	-	-	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	1U	5U	5U	10U	5U	2U	-	10U	-	-	-	-	-	-	-	-	5U	-	-	0.5U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.5U	0.5U	0.8U	15J	21J	10J	18J	2U	17J	14J	28J	9J	11J	16J	17J	7J	14J	13J	6J	8J	12	840
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8600
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-250	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252
			Sample Date	01/26/2018	02/16/2007	08/23/2007	01/29/2008	09/18/2008	04/14/2009	10/08/2009	04/06/2010	05/10/2011	06/20/2013	09/16/2014	07/15/2015	11/02/2017	02/16/2007	08/23/2007	11/14/2007	02/07/2008	09/11/2008	04/02/2009	10/13/2009	04/01/2010	08/17/2010	02/08/2011	10/25/2011
			Field Sample ID	M250C8X	M251A1X	M251A2X	M251A3X	M251A4X	M251A5X	M251A6X	M251A7X	M251A8X	M251A9X	M251B1X	M251B2X	M251B7X	M252A1X	M252A2X	M252A3X	M252A4X	M252A5X	M252A6X	M252A7X	M252A8X	M252A9X	M252B1X	M252B2X
			SDG	CQ952	1025917	1053010	1075238	1110903	1140444	1165848	RFS37	RFT19	RFB13	CS156	CS261	CS621	1025917	1053010	1065611	1076506	1109693	1138848	1166229	RFS36	RFS64	RFS84	RFT81
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	2U	0.8U	4U	0.8U	4U	0.8U	0.8U	4U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	2U	0.8U	4U	0.8U	4U	0.8U	0.8U	4U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
1,1,2-Trichloroethane	ug/L	N	3	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	2U	0.8U	4U	0.8U	4U	0.8U	0.8U	4U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	4U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	4U	2U	10U	2U	10U	2U	2U	10U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	2U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	4U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	4U	2U	10U	2U	10U	2U	2U	10U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	2U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	2U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
1,4-Dichlorobenzene	ug/L	N	75	2U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	6U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	3J	6U	3U	15U	3U	15U	3U	3U	15U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	6U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	3U	6U	3U	15U	3U	15U	3U	3U	15U	3U
4-Methyl-2-pentanone	ug/L	N	100	6U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	3U	6U	3U	15U	3U	15U	3U	3U	15U	3U
Acetone	ug/L	N	6000	12U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	12J	24	12U	6U	30U	6U	30U	6U	6U	30U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	450	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	3U	0.5U	3U	0.5U	0.5U	3U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
Carbon disulfide	ug/L	N	700	2U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	11	16	2U	1U	5U	1U	5U	1U	1J	5U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
Chlorobenzene	ug/L	N	50	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	2U	0.8U	4U	0.8U	4U	0.8U	0.8U	4U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
Chloroform	ug/L	N	70	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	3J	0.8U	2U	0.8U	4U	0.8U	4U	0.8U	0.8U	4U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
cis-1,2-Dichloroethene	ug/L	N	70	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	2U	0.8U	4U	0.8U	4U	0.8U	0.8U	4U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
Cyclohexane	ug/L	N	100	70	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	4U	2U	10U	2U	10U	2U	2U	10U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	1U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	4U	2U	10U	2U	10U	2U	2U	10U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	9	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	2U	0.8U	4U	0.8U	4U	0.8U	0.8U	4U	0.8U
Isopropylbenzene	ug/L	N	700	2U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	2U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
Methyl-t-butyl ether	ug/L	N	70	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	2J	3J	8J	8	9J	0.5U	8J	11	12	11J	12
Methylcyclohexane	ug/L	N	100	27	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	2J	2J	2U	1U	5U	1U	5U	1U	1U	5U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	1U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	4U	2U	10U	2U	10U	2U	2U	10U	2U
Styrene	ug/L	N	100	2U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
Tetrachloroethene	ug/L	N	1	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	2U	0.8U	4U	0.8U	4U	0.8U	0.8U	4U	0.8U
Toluene	ug/L	N	600	5	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U	0.7U	1U	0.7U	4U	0.7U	4U	0.7U	0.7U	4U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	2U	0.8U	4U	0.8U	4U	0.8U	0.8U	4U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	1U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	4U	2U	10U	2U	10U	2U	2U	10U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	2U	1U	5U	1U	5U	1U	1U	5U	1U
Xylene (total)	ug/L	N	1000	180	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	2U	0.8U	4U	0.8U	4U	0.8U	0.8U	4U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	3000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252R	MW-252R	MW-252R	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253
			Sample Date	04/23/2012	11/12/2012	05/09/2013	07/09/2013	10/15/2013	12/09/2013	07/10/2014	01/09/2015	07/14/2015	10/18/2017	01/10/2018	01/10/2018	02/20/2007	08/21/2007	02/20/2008	09/17/2008	03/18/2009	09/24/2009	03/18/2010	04/07/2011	06/20/2012	05/31/2013	09/24/2014	07/10/2015
			Field Sample ID	M252B3X	M252B4X	M252B6X	M252B7X	M252B8X	M252B9X	M252C1X	M252C2X	M252C3X	M252RC8X	D0110188	M252RC9X	M253A1X	M253A2X	M253A3x	M253A4X	M253A5X	M253A6X	M253A7X	M253A9X	M253B1X	M253B2X	M253B3X	M253B4X
			SDG	RFU48	RFX03	RFZ32	CP036	CP143	CP234	CP408	CP634	CP779	CQ825	CQ936	CQ936	1026729	1052568	1078319	1110669	1136756	1163395	RFS34	RFT05	RFU86	RFZ73	CS160	CS259
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	10UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	10UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	15UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	15UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	15UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-
Acetone	ug/L	N	6000	6U	6U	6UJ	6U	6U	21	6U	6U	6U	30UJ	6U	6U	6J	6U	6U	6U	6U	6U	6U	6U	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	0.7J	0.6J	0.7J	0.5U	0.6J	0.5J	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	3UJ	0.5UJ	0.5UJ	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	2J	2J	3J	5	5	2J	1U	1U	1U	1U	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	2J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	10UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	10	0.5U	16	1J	12	0.5U	0.5U	6	2	4J	3	3	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Methylcyclohexane	ug/L	N	100	1U	2J	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	3UJ	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	20U	20U	20U	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	20U	-	20U	-	20U	-	20U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-253	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255
			Sample Date	09/13/2017	02/27/2007	08/21/2007	02/20/2008	09/30/2008	03/06/2009	10/07/2009	03/18/2010	08/19/2010	04/28/2011	05/10/2012	05/31/2013	09/25/2014	12/17/2015	05/27/2016	09/20/2016	12/15/2016	06/01/2017	02/09/2007	08/21/2007	11/15/2007	02/20/2008	09/12/2008	03/06/2009
			Field Sample ID	M253C1X	M254A1X	M254A2X	M254A3X	M254A4X	M254A5X	M254A6X	M254A7X	M254A8X	M254A9X	M254B1X	M254B2X	M254B3X	M254B4X	M254B5X	M254B6X	M254B7X	M254B8X	M255A1X	M255A2X	M255A3X	M255A4X	M255A5X	M255A6X
			SDG	CS602	1027184	1052568	1078319	1112628	1135061	1165407	RFS34	RFS64	RFT14	RFU56	RFZ73	CS161	CS331	CS407	CQ304	CQ489	CS565	1025114	1052568	1065827	1078319	1109940	1135061
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	8J	3U	8J	7J	4J	6J	17	10J	3U	3U	6J	6J	3U	5J	7J	4J	9J	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	-	45	26	49	33	30	18J	51	54	34	39	19J	11J	6UJ	6U	10J	11J	24	6U	6U	6U	6U	10J	7J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	17	46	36	68	0.5U	7	9	4J	17	4J	3J	2	3	3	2	3	8	0.5U	0.5U	0.5U	0.5U	0.5U	11
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	-	100	160	120	130	2U	63	65	57	80	33	36	20	21	25	21	22	45	3J	2U	2U	2U	2U	89
Dibromochloromethane	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	5J	7	3J	3J	0.8U	0.9J	1J	0.8U	1J	0.8U	0.8U	0.5U	0.7J	0.7J	0.5U	0.7J	1	0.8U	0.8U	0.8U	0.8U	0.8U	1J
Isopropylbenzene	ug/L	N	700	-	52	39	48	50	1U	39	35	32	34	35	39	30	35	34	28	31	32	1U	1U	1U	1U	1U	37
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	2J	2J	3J	2J	0.5U	1J	1J	1J	2J	0.8J	1J	0.8J	1	2	1	0.5U	2	0.5U	0.5U	0.5U	0.5U	0.5U	2J
Methylcyclohexane	ug/L	N	100	-	170	150	170	150	1U	120	120	110	150	130	140	120	150	130	130	120	140	3J	1J	1U	1U	1U	140
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	7	8	7	11	0.7U	4J	3J	3J	4J	3J	3J	3	3	3	3	3	6	0.7U	0.7U	0.7U	0.7U	0.7U	5J
trans-1,2-Dichloroethene	ug/L	N	100	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	2	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.5U	16	12	14	16	0.8U	9	9	8	9	6	6	5	6	5	6	5	7	0.8U	0.8U	0.8U	0.8U	0.8U	12
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1800J+	2000J+	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-257
			Sample Date	09/24/2009	02/18/2010	08/19/2010	04/07/2011	06/14/2012	05/31/2013	09/24/2014	02/09/2007	08/21/2007	02/20/2008	09/12/2008	03/06/2009	09/23/2009	03/03/2010	09/03/2010	03/31/2011	05/02/2012	05/30/2013	08/15/2013	06/27/2014	06/27/2014	07/08/2015	02/20/2018	02/09/2007
			Field Sample ID	M255A7X	M255A8X	M255A9X	M255B1X	M255B2X	M255B3X	M255B4X	M256A1X	M256A2X	M256A3X	M256A4X	M256A5X	M256A6X	M256A7X	M256A8X	M256A9X	M256B1X	M256B2X	M256B3	D0627141	M256B5X	M256B8X	M256C9X	M257A1X
			SDG	1163395	1183032	RFS64	RFT05	RFU83	RFZ73	CS160	1025114	1052568	1078319	1109940	1135061	1163168	RFS32	RFS66	RFT04	RFU51	RFZ71	CP074	CS119	CS119	CS258	CS649	1025114
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	5J	3U	3U	3U	3U	5J	3U	5J	5J	3U	3U	4J	3J	4J	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	13J	7J	6U	6U	6U	19J	23	31	19J	8J	13J	29	32	6U	12J	17J	6U	6U	6U	9J	18J	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	9	7	4J	6	2J	3J	2J	2J	2J	1J	2J	1J	3	3	2	2	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	38	60	53	44	2U	23	12	16	20	12	16	21	24	24	17	13	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5UJ	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	6	4J	3J	5J	2J	6	0.8U	0.8U	0.8U	0.8U	2J	0.9J	6	6	2	2	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	120	110	110	120	81	160	65	64	82	66	87	59	220	220	140	190	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17000	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2	2	0.5J	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	130	150	170	120	160	86	140	110	140	140	150	120	65	74	83	31	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	1J	0.7U	0.7U	0.5U	3J	3J	2J	3J	2J	3J	1J	1J	2J	1J	2J	1J	0.7J	0.8J	0.9J	1	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	10	8	6	6	5	4J	4J	4J	5J	4J	5	4J	5	5	5	4	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1600	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-259	MW-259	MW-259	MW-259	MW-259
			Sample Date	08/23/2007	02/26/2008	09/12/2008	03/06/2009	09/25/2009	02/19/2010	09/03/2010	03/31/2011	10/25/2011	05/07/2012	09/07/2012	05/30/2013	08/15/2013	10/04/2013	06/19/2014	08/15/2014	11/06/2014	07/08/2015	02/20/2018	03/01/2007	05/22/2007	12/05/2007	06/26/2008	10/24/2008
			Field Sample ID	M257A2X	M257A3X	M257A4X	M257A5X	M257A6X	M257A7X	M257A8X	M257A9X	M257B1X	M257B2X	M257B3X	M257B4X	M257B5	M257B7X	M257B8X	M257B9X	M257C1X	M257D1X	M257E2X	M259A1X	M259A2X	M259A3X	M259A4X	M259A5X
			SDG	1053010	1079047	1109940	1135061	1163612	1183211	RFS66	RFT04	RFT81	RFU51	RFV38	RFZ71	CP074	CS023	CS114	CP464	CS182	CS258	CS649	1027540	1039429	1068390	1098093	1116797
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	10U	4U	4U	2U	4U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	5U	2U	2U	1U	2U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	10U	4U	4U	2U	4U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	5U	2U	2U	1U	2U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	5U	2U	2U	1U	2U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	5U	2U	2U	1U	2U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	15U	9J	6U	8J	14J
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	15U	6U	6U	3U	6U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	15U	6U	6U	3U	6U
Acetone	ug/L	N	6000	6U	6U	6U	8J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	6U	6U	6U	30U	30J	47	34	62
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	190	120	120	150	300
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	5U	2U	2U	1U	2U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	600	380	400	410	480
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	-	0.5U	0.5U	0.5UJ	10U	4U	4U	2U	4U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	0.5U	0.5U	0.5U	310	270	190	250	190
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	55	59	34	46	31
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	4200	-	-	4600	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	5U	2U	2U	1U	2U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	3U	1U	1U	0.5U	1U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	630	440	590	600	550
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	0.5U	10U	4U	4U	2U	4U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	5U	2U	2U	1U	2U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	-	0.5U	0.5U	0.5U	100	110	100	140	67
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	-	0.5U	0.5U	0.5U	10U	4U	4U	2U	4U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	-	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	-	0.5U	0.5U	0.5U	2500	2000	2100	2200	2000
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	20U	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-263	MW-263	MW-263	MW-263
			Sample Date	07/14/2009	11/10/2009	06/02/2010	09/14/2010	06/14/2011	11/17/2011	04/26/2012	08/09/2012	04/19/2013	08/19/2013	09/24/2013	03/27/2014	08/18/2014	12/05/2014	01/14/2015	09/15/2015	03/03/2016	12/20/2016	02/08/2017	08/22/2017	03/09/2007	05/17/2007	12/13/2007	07/01/2008
			Field Sample ID	M259A6X	M259A7X	M259A8X-100602	M259A9X	M259B1X	M259B2X	M259B3X	M259B4X	M259B5X	M259B6	M259B7X	M259B8X	M259B9X	M259C1X	M259C2X	M259C3X	M259C4X	M259C5X	M259C6X	M259C7X	M263A1X	M263A2X	M263A3X	M263A4X
			SDG	1153395	1170404	RFS45	RFS67	RFT32	RFT87	RFU49	RFV27	RFY97	CP078	CS014	CS077	CP473	CP617	CS194	CP839	CS367	CS493	CS512	CS592	1028748	1038811	1069705	1098780
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	2U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	0.8U	0.8U	4U	8U
1,1,1-Trichloroethane	ug/L	N	30	2U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1UJ	0.5U	0.8U	0.8U	4U	8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U
1,1,2-Trichloroethane	ug/L	N	3	2U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	11	0.8U	0.8U	4U	8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	4U	2U	2U	2U	2U	4U	2U	2U	5U	2U	2U	2U	5U	4U	2U	2U	2U	4U	4U	2U	2U	2U	10U	20U
1,1-Dichloroethane	ug/L	N	50	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1J	0.5U	1U	1U	0.5U	1J	0.5U	1U	1U	0.5U	1U	1U	5U	10U
1,2,4-Trichlorobenzene	ug/L	N	9	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	1U	3U	2U	1U	1U	1U	2U	2U	1U	1U	1U	5U	10U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	4U	2U	2U	2U	2U	4U	2U	2U	5U	2U	2U	2U	5U	4U	2U	2U	2U	4U	4U	2U	2U	2U	10U	20U
1,2-Dibromoethane	ug/L	N	0	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	2U	1U	1U	1U	1U	2U	1U	80	3U	1U	1U	1U	3U	2U	1U	1U	1U	2U	2U	1U	1U	1U	5U	10U
1,2-Dichloroethane	ug/L	N	2	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U
1,2-Dichloropropane	ug/L	N	1	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	1U	3U	2U	1U	1U	1U	2U	2U	1U	1U	1U	5U	10U
1,4-Dichlorobenzene	ug/L	N	75	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	1U	3U	2U	1U	1U	1U	2U	2U	1U	1U	1U	5U	10U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	6U	3U	3U	3U	12	6U	8J	10J	8J	6J	7J	3U	8U	10J	3U	8J	11	6J	13J	3U	5J	5J	15U	30U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	6U	3U	3U	3U	3U	6U	3U	3U	8U	3U	3U	3U	8U	6U	3U	3UJ	3U	6UJ	6U	11J	3U	3U	15U	30U
4-Methyl-2-pentanone	ug/L	N	100	6U	3U	3U	3U	3U	6U	3U	3U	8U	3U	3U	3U	8U	6U	3U	3U	3U	6U	6U	3U	3U	7J	15U	30U
Acetone	ug/L	N	6000	12U	9J	11J	6U	14J	12J	14J	14J	15U	6U	6U	6U	15U	12U	6U	12J	20	15J	20J	12J	23	18J	30U	60U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	100	100	130	150	140	150	160	180	210	260	160	160	170	210	380	260	230	370	290	270	89	64	59	63
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U
Bromoform	ug/L	N	4	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U
Bromomethane (Methyl bromide)	ug/L	N	10	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1UJ	0.5U	1U	1U	5U	10U
Carbon disulfide	ug/L	N	700	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	1U	3U	2U	1U	1U	1U	2U	2U	1U	1U	1U	5U	10U
Carbon Tetrachloride	ug/L	N	1	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U
Chlorobenzene	ug/L	N	50	2U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	0.8U	0.8U	4U	8U
Chloroethane	ug/L	N	5	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1UJ	0.5U	1U	1U	5U	10U
Chloroform	ug/L	N	70	2U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1J	0.8U	4U	8U
Chloromethane (Methyl chloride)	ug/L	N	NS	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U
cis-1,2-Dichloroethene	ug/L	N	70	2U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	0.8U	0.8U	4U	8U
cis-1,3-Dichloropropene	ug/L	N	1	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U
Cyclohexane	ug/L	N	100	270	330	320	430	270	310	350	350	500	420	410	560	430	430	280	280	350	360	320	410	33	27	22J	27J
Dibromochloromethane	ug/L	N	1	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	4U	2U	2U	2U	2U	4U	2U	2U	5U	2U	2U	0.5U	1U	1U	0.5U	0.5U	0.5U	1UJ	1U	0.5U	2U	2U	10U	20U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	230	150	160	170	160	66	82	90	110	68	83	88	54	54	72	54	100	71	93	130	81	42	61	60
Isopropylbenzene	ug/L	N	700	45	35	35	42	44	27	32	38	37	29	39	45	31	29	36	30	41	37	44	47	5J	3J	6J	10U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	7500	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	1U	3U	2U	1U	1U	1U	2U	2U	1U	1U	1U	5U	10U
Methyl-t-butyl ether	ug/L	N	70	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	3U	5U
Methylcyclohexane	ug/L	N	100	290	490	360	650	260	340	520	560	720	370	620	590	600	480	250	270	280	220	140	250	28	24	13J	21J
Methylene chloride (Dichloromethane)	ug/L	N	3	4U	2U	2U	2U	2U	4U	2U	2U	5U	2U	2U	2U	5U	4U	2U	2U	2U	4U	4U	2U	2J	2U	10U	20U
Styrene	ug/L	N	100	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	1U	3U	2U	1U	1U	1U	2U	2U	1U	1U	1U	5U	10U
Tetrachloroethene	ug/L	N	1	2U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	0.8U	0.8U	4U	8U
Toluene	ug/L	N	600	130	99	110	110	130	110	86	97	100	80	88	120	80	100	110	68	170	120	130	150	3J	2J	4U	7U
trans-1,2-Dichloroethene	ug/L	N	100	2U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	0.8U	0.8U	4U	8U
trans-1,3-Dichloropropene	ug/L	N	1	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U
Trichloroethene (Trichloroethylene)	ug/L	N	1	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	4U	2U	2U	2U	2U	4U	2U	2U	5U	2U	2U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1UJ	0.5U	2U	2U	10U	20U
Vinyl chloride (Chloroethene)	ug/L	N	1	2U	1U	1U	1U	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	1U	1U	5U	10U
Xylene (total)	ug/L	N	1000	1500	1800	1800	2300	1900	1800	2000	2000	2800	1700	2000	2500	1900	2100	1500	1200	1800	1400	1400	2100	79	29	18J	41J
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	10000	-	-	9500	9800	-	11000	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264
			Sample Date	10/21/2008	07/07/2009	11/24/2009	06/02/2010	09/21/2010	06/07/2011	03/09/2012	04/09/2013	05/29/2014	06/08/2016	05/08/2017	03/09/2007	05/16/2007	12/05/2007	07/24/2008	10/21/2008	06/26/2009	10/27/2009	06/15/2010	09/16/2010	05/24/2011	02/29/2012	03/21/2013
			Field Sample ID	M263A5X	M263A6X	M263A7X	M263A8X-100602	M263A9X	M263B1X	M263B2X	M263B3X	M263B4X	M263B5X	M263B6X	M264A1X	M264A2X	M264A3X	M264A4X	M264A5X	M264A6X	M264A7X	M264A8X-100615	M264A9X	M264B1X	M264B2X	M264B3X
			SDG	1116164	1152446	1172674	RFS45	RFS68	RFT29	RFU16	RFY63	CS106	CS412	CS556	1028748	1038619	1068390	1102261	1116164	1151128	1168255	RFS47	RFS67	RFT24	RFU14	RFY20
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
1,1,2-Trichloroethane	ug/L	N	3	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	5U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	10U	20U	20U	20U	10U	50U	20U	20U	2U	20U	20U	2U
1,1-Dichloroethane	ug/L	N	50	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	3U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	5U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	10U	20U	20U	20U	10U	50U	20U	20U	2U	20U	20U	2U
1,2-Dibromoethane	ug/L	N	0	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	3U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
1,2-Dichloroethane	ug/L	N	2	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
1,2-Dichloropropane	ug/L	N	1	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	3U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
1,4-Dichlorobenzene	ug/L	N	75	3U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	8U	7J	7J	3U	4J	6J	5J	9J	-	5J	6J	15U	30U	30U	30U	15U	75U	30U	63J	3U	41J	30U	30
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	8U	3U	3U	3U	3U	3U	3U	3U	-	3UJ	3U	15U	30U	30U	30U	15U	75U	30U	30U	3U	30U	30U	3U
4-Methyl-2-pentanone	ug/L	N	100	8U	3U	3U	3U	3U	3U	3U	3U	-	3UJ	3U	15U	30U	30U	30U	15U	75U	30U	30U	3U	30U	30U	3U
Acetone	ug/L	N	6000	15U	25	31	6U	19J	18J	26	30	-	25	27	30U	60U	60U	60U	30U	150U	60U	60U	6U	91J	60U	38
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	60	64	99	66	86	64	58	75	60	95	65	20J	10J	9J	9J	3U	13U	5U	5U	1J	5U	5U	3J
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
Bromoform	ug/L	N	4	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5UJ	0.5U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
Carbon disulfide	ug/L	N	700	3U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
Carbon Tetrachloride	ug/L	N	1	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
Chlorobenzene	ug/L	N	50	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U
Chloroethane	ug/L	N	5	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
Chloroform	ug/L	N	70	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
cis-1,2-Dichloroethene	ug/L	N	70	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
Cyclohexane	ug/L	N	100	10J	22	30	3J	34	26	28	33	-	32	18	40	51	76	47J	18J	50U	37J	56	42	66	79	95
Dibromochloromethane	ug/L	N	1	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	5U	2U	2U	2U	2U	2U	2U	2U	-	0.5U	0.5U	10U	20U	20U	20U	10U	50U	20U	20U	2U	20U	20U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	39	64	73	29	52	41	40	38	26	24	18	4U	8U	8U	8U	4U	20U	8U	8U	0.8U	8U	8J	8
Isopropylbenzene	ug/L	N	700	3J	7	6	1J	5J	5J	5	7	-	8	6	6J	10U	15J	10U	5U	25U	10U	10U	6	10U	12J	13
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	3U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
Methyl-t-butyl ether	ug/L	N	70	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	3U	5U	5U	5U	3J	13U	5U	5U	3J	5U	5U	2J
Methylcyclohexane	ug/L	N	100	6J	16	21	1U	26	20	22	26	-	24	14	16J	20J	24J	17J	5U	25U	17J	24J	8	33J	42J	48
Methylene chloride (Dichloromethane)	ug/L	N	3	5U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	10U	20U	20U	20U	10U	50U	20U	20U	2U	20U	20U	2U
Styrene	ug/L	N	100	3U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
Tetrachloroethene	ug/L	N	1	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U
Toluene	ug/L	N	600	4J	9	12	4J	9	7	5	4J	5U	3	3	150	190	300	340	31	280	290	280	12	280	470	440
trans-1,2-Dichloroethene	ug/L	N	100	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	5U	2U	2U	2U	2U	2U	2U	2U	-	0.5U	0.5U	10U	20U	20U	20U	10U	50U	20U	20U	2U	20U	20U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	3U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U
Xylene (total)	ug/L	N	1000	26	60	65	13	53	44	35	23	15	11	6	41	41J	75	63	17J	32J	58	68	16	61	86	89
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-264	MW-264	MW-264	MW-264	MW-264	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270
			Sample Date	09/10/2014	12/04/2015	06/10/2016	07/22/2016	05/11/2017	02/27/2007	08/30/2007	02/05/2008	09/17/2008	05/14/2009	09/01/2009	12/08/2009	04/09/2010	07/09/2010	10/04/2010	02/17/2011	05/12/2011	08/09/2011	12/20/2012	03/28/2013	01/16/2014	02/24/2014	08/21/2014	09/17/2014
			Field Sample ID	M264B4X	M264B5X	M264B6X	M264B7X	M264B8	M270A1X	M270A2X	M270A3X	M270A4X	M270A5	M270A6	M270A7	M270A8	M270B1X-100709	M270B2	M270B4X	M270B5	M270B6X	M270B8X	M270B9	M270C2X	M270C3X	M270C4X	M270C5X
			SDG	CS155	CP946	CS414	CQ194	CS558	1027183	1054027	1076059	1110669	1144894	1160143	1174313	GWC54	RFS52	RFS70	RFS90	RFT20	RFT52	RFX26	RFY40	CP261	CS066	CP478	CP508
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	5U	0.5UJ	5U	0.5U	5U	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	2U	0.8U	0.8U	-	0.5UJ	1U
1,1,1-Trichloroethane	ug/L	N	30	5U	0.5UJ	5U	0.5U	5U	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	2U	0.8U	0.8U	-	0.5UJ	1U
1,1,2,2-Tetrachloroethane	ug/L	N	1	5U	0.5UJ	5U	0.5U	5U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	0.5UJ	1U
1,1,2-Trichloroethane	ug/L	N	3	5U	0.5UJ	5U	0.5U	5U	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	2U	0.8U	0.8U	-	0.5UJ	1U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	20U	2UJ	20U	2U	20U	2U	4U	2U	2U	-	-	-	-	-	-	-	-	-	4U	2U	2U	-	2UJ	4U
1,1-Dichloroethane	ug/L	N	50	5U	0.5UJ	5U	0.5U	5U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	0.5UJ	1U
1,2,4-Trichlorobenzene	ug/L	N	9	10U	1UJ	10U	1U	10U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	1UJ	2U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	20U	2UJ	20U	2U	20U	2U	4U	2U	2U	-	-	-	-	-	-	-	-	-	4U	2U	2U	-	2UJ	4U
1,2-Dibromoethane	ug/L	N	0	5U	0.5UJ	5U	0.5U	5U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	0.5UJ	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	10U	1UJ	10U	1U	10U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	1UJ	2U
1,2-Dichloroethane	ug/L	N	2	5U	0.5UJ	5U	0.5U	5U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	0.5UJ	1U
1,2-Dichloropropane	ug/L	N	1	5U	0.5UJ	5U	0.5U	5U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	0.5UJ	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	10U	1UJ	10U	1U	10U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	1UJ	2U
1,4-Dichlorobenzene	ug/L	N	75	10U	1UJ	10U	1U	10U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	1UJ	2U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	30U	3UJ	30U	3U	30U	8J	11J	3U	3U	-	-	-	-	-	-	-	-	-	6U	3U	3U	-	7J	15J
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	30U	3UJ	30U	3U	30U	3U	6U	3U	3U	-	-	-	-	-	-	-	-	-	6U	3U	3U	-	3UJ	6U
4-Methyl-2-pentanone	ug/L	N	100	30U	3UJ	30U	3U	30U	3U	6U	3U	3U	-	-	-	-	-	-	-	-	-	6U	3U	3U	-	3UJ	6U
Acetone	ug/L	N	6000	60U	45J+	60U	6U	60U	30	58	26	24	-	-	-	-	-	-	-	-	-	12U	7J	6U	-	28J	70J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	8J	0.8J	5U	2	5U	310	330	300	340	210	150	690	280	230	810	330	310	1000	740	120	38	82	1900J	1300J
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	5U	0.5UJ	5U	0.5U	5U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	0.5UJ	1U
Bromoform	ug/L	N	4	5U	0.5UJ	5U	0.5U	5U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	0.5UJ	1U
Bromomethane (Methyl bromide)	ug/L	N	10	5U	0.5UJ	5U	0.5UJ	5U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	0.5UJ	1U
Carbon disulfide	ug/L	N	700	10U	1UJ	10U	1U	10U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	1UJ	2U
Carbon Tetrachloride	ug/L	N	1	5U	0.5UJ	5U	0.5U	5U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	0.5UJ	1U
Chlorobenzene	ug/L	N	50	5U	0.5UJ	5U	0.5U	5U	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	2U	0.8U	0.8U	-	0.5UJ	1U
Chloroethane	ug/L	N	5	5U	0.5UJ	5U	0.5U	5U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	0.5UJ	1U
Chloroform	ug/L	N	70	5U	0.5UJ	5U	0.5U	5U	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	2U	0.8U	0.8U	-	0.5UJ	1U
Chloromethane (Methyl chloride)	ug/L	N	NS	5U	0.5UJ	5U	0.5U	5U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	0.5UJ	1U
cis-1,2-Dichloroethene	ug/L	N	70	5U	0.5UJ	5U	0.5U	5U	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	2U	0.8U	0.8U	-	0.5UJ	1U
cis-1,3-Dichloropropene	ug/L	N	1	5U	0.5UJ	5U	0.5U	5U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	0.5UJ	1U
Cyclohexane	ug/L	N	100	50	30J	58	57	47J	100	270	180	230	-	-	-	-	170	-	170	-	190	89	76	160	160	280J	160J
Dibromochloromethane	ug/L	N	1	5U	0.5UJ	5U	0.5U	5U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	0.5UJ	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	5U	0.5UJ	5U	0.5U	5U	2U	4U	2U	2U	-	-	-	-	-	-	-	-	-	4U	2U	2U	-	0.5UJ	1U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	5J	0.6J	5U	4	5U	520	820	380	540	370	240	320	330	280	280	240	130	160	17	69	270	180	230J	40J
Isopropylbenzene	ug/L	N	700	10U	6J	11J	9	10U	27	44	25	34	-	-	-	-	-	-	-	-	-	13	11	31	-	30J	21J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	10U	1UJ	10U	1U	10U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	1UJ	2U
Methyl-t-butyl ether	ug/L	N	70	5U	2J	5U	1	5U	0.5J	1U	0.5J	0.5U	-	-	-	-	-	-	-	-	-	1U	0.5U	0.6J	-	0.6J	1U
Methylcyclohexane	ug/L	N	100	29J	10J	31J	27	25J	75	200	110	140	-	-	-	-	-	-	-	-	-	43	46	85	-	100J	59J
Methylene chloride (Dichloromethane)	ug/L	N	3	20U	2UJ	20U	2U	20U	2U	4U	2U	2U	-	-	-	-	-	-	-	-	-	4U	2U	2U	-	2UJ	4U
Styrene	ug/L	N	100	10U	1UJ	10U	1U	10U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	1UJ	2U
Tetrachloroethene	ug/L	N	1	5U	0.5UJ	5U	0.5U	5U	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	2U	0.8U	0.8U	-	0.5UJ	1U
Toluene	ug/L	N	600	320	34J	350	280	330	27	28	16	21	11	8	20	14	13	24	13	12	24	16	9	11	7	66J	42J
trans-1,2-Dichloroethene	ug/L	N	100	5U	0.5UJ	5U	0.5U	5U	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	2U	0.8U	0.8U	-	0.5UJ	1U
trans-1,3-Dichloropropene	ug/L	N	1	5U	0.5UJ	5U	0.5U	5U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	0.5UJ	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	5U	0.5UJ	5U	0.5U	5U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	0.5UJ	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	5U	0.5UJ	5U	0.5U	5U	2U	4U	2U	2U	-	-	-	-	-	-	-	-	-	4U	2U	2U	-	0.5UJ	1U
Vinyl chloride (Chloroethene)	ug/L	N	1	5U	0.5UJ	5U	0.5U	5U	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	2U	1U	1U	-	0.5UJ	1U
Xylene (total)	ug/L	N	1000	64	19J	86	90	86	1200	1500	590	660	420	200	320	490	230	270	230	250	140	33	62	330	93	500J	310J
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	1200	-	2600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3100	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271
			Sample Date	10/28/2014	01/29/2015	04/14/2015	07/08/2015	07/22/2015	10/22/2015	10/30/2017	01/16/2018	02/27/2007	08/30/2007	02/05/2008	09/19/2008	05/11/2009	09/01/2009	10/01/2009	12/04/2009	04/09/2010	07/09/2010	10/04/2010	02/17/2011	05/12/2011	08/09/2011	12/20/2012	03/28/2013
			Field Sample ID	M270C6X	M270C7X	M270C8X	M270C9X	M270D1X	M270D2X	M270E1X	M270E3X	M271A1X	M271A2X	M271A3X	M271A4X	M271A5X	M271A6	M271A6X	M271A8	M271A9	M271B2X-100709	M271B3	M271B5X	M271B6	M271B7X	M271B9X	M271C1
			SDG	CP567	CP658	CP683	CP773	CS266	CP898	CQ852	CQ942	1027183	1054027	1076059	1111172	1144240	1160143	1164446	1173883	GWC54	RFS52	RFS70	RFS90	RFT20	RFT52	RFX26	RFY40
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	4U	8U	8U	8U	8U	-	4U	-	-	-	-	-	-	-	8U	2U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	4U	8U	8U	8U	8U	-	4U	-	-	-	-	-	-	-	8U	2U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	4U	8U	8U	8U	8U	-	4U	-	-	-	-	-	-	-	8U	2U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2UJ	-	2U	2U	2U	10U	20U	20U	20U	20U	-	10U	-	-	-	-	-	-	-	20U	4U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1UJ	-	1U	1U	1U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2UJ	-	2U	2U	2U	10U	20U	20U	20U	20U	-	10U	-	-	-	-	-	-	-	20U	4U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1UJ	-	1U	1U	1U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1UJ	-	1U	1U	1U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1UJ	-	1U	1U	1U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3UJ	-	3U	3U	3U	23J	30U	30U	30U	61J	-	15U	-	-	-	-	-	-	-	30U	7J
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3UJ	-	3U	3U	3U	15U	30U	30U	30U	150	-	15U	-	-	-	-	-	-	-	30U	6U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3UJ	-	3U	3U	3U	15U	30U	30U	30U	57J	-	15U	-	-	-	-	-	-	-	30U	6U
Acetone	ug/L	N	6000	6U	6U	6U	6UJ	-	6U	6U	6U	150	160J	200	87J	220	-	30U	-	-	-	-	-	-	-	60U	14J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	86	25	70	200J-	8	140	2	4	4100	6300	6500	4000	4600	3600	1900	3100	3200	2600	3300	3600	3900	4000	4400	4000
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5UJ	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1UJ	-	1U	1U	1U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5UJ	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	4U	8U	8U	8U	8U	-	4U	-	-	-	-	-	-	-	8U	2U
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	6J	8U	8U	8U	8U	-	4U	-	-	-	-	-	-	-	8U	2U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	4U	8U	8U	8U	8U	-	4U	-	-	-	-	-	-	-	8U	2U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
Cyclohexane	ug/L	N	100	59	88	110	120J-	61	130	2J	67	270	350	430	250	480	-	190	-	-	350	-	200	-	250	190	210
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	10U	20U	20U	20U	20U	-	10U	-	-	-	-	-	-	-	20U	4U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	1	1	9	2J-	0.5J	0.8J	0.5U	0.5U	210	560	1200	420	510	390	160	330	320	210	120	51	190	72	33J	35
Isopropylbenzene	ug/L	N	700	8	13	17	16J-	-	15	1U	12	23J	26J	48J	31J	30J	-	12J	-	-	-	-	-	-	-	20J	18
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1UJ	-	1U	1U	1U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5J	0.6J	0.5J-	-	0.6J	0.5U	0.5J	3U	5U	5U	5U	5U	-	3U	-	-	-	-	-	-	-	5U	1U
Methylcyclohexane	ug/L	N	100	25	37	45	47J-	-	48	1U	30	170	170	10U	150	250	-	130	-	-	-	-	-	-	-	110	110
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2UJ	-	2U	0.5U	0.5U	10U	20U	20U	20U	20U	-	10U	-	-	-	-	-	-	-	20U	4U
Styrene	ug/L	N	100	1U	1U	1U	1UJ	-	1U	1U	1U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	4U	8U	8U	8U	8U	-	4U	-	-	-	-	-	-	-	8U	2U
Toluene	ug/L	N	600	5	2	4	7J-	1	7	0.5U	1	940	99	750	400	920	480	91	270	190	120	100	56	88	44	44J	56
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	4U	8U	8U	8U	8U	-	4U	-	-	-	-	-	-	-	8U	2U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	10U	20U	20U	20U	20U	-	10U	-	-	-	-	-	-	-	20U	4U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5U	0.5U	5U	10U	10U	10U	10U	-	5U	-	-	-	-	-	-	-	10U	2U
Xylene (total)	ug/L	N	1000	17	5	22	12J-	7	10	0.5U	3	1400	870	2400	670	2000	1200	320	850	1000	990	620	330	920	520	300	360
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	51	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	1600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13000	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-272	MW-272	MW-272	MW-272	MW-272	MW-272	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275
			Sample Date	01/17/2014	02/24/2014	08/20/2014	09/18/2014	10/21/2014	01/20/2015	04/13/2015	07/08/2015	10/21/2015	10/30/2017	02/27/2007	09/07/2007	02/15/2008	08/28/2008	03/27/2009	09/29/2009	10/01/2007	11/20/2007	01/31/2008	10/01/2008	05/12/2009	08/31/2009	12/03/2009	04/08/2010
			Field Sample ID	M271C2X	M271C3X	M271C4X	M271C5X	M271C6X	M271C7X	M271C8X	M271C9X	M271D1X	M271D8X	M272A1X	M272A2X	M272A3X	M272A4X	M272A5X	M272A6X	M275A1	M275A2X	M275A3X	M275A4X	M275A5	M275A6	M275A7	M275A9
			SDG	CP262	CS066	CP475	CP511	CP552	CP649	CP682	CP773	CP897	CQ852	1027183	1055127	1077812	1107601	1138048	1163942	1058818	1066488	1075579	1112904	1144454	1160143	1173658	GWC54
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	8U	8U	2U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	8U	8U	2U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	8U	8U	2U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	2UJ	2U	2U	2U	2U	4UJ	10U	4U	20U	20U	4U	2U	2U	10U	2U	2U	2U	2U	2U	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	1UJ	1U	1U	1U	1U	2UJ	5U	2U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	2UJ	2U	2U	2U	2U	4UJ	10U	4U	20U	20U	4U	2U	2U	10U	2U	2U	2U	2U	2U	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	1UJ	1U	1U	1U	1U	2UJ	5U	2U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	1UJ	1U	1U	1U	1U	2UJ	5U	2U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	-	1UJ	1U	1U	1U	1U	2UJ	5U	2U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	3UJ	3U	3U	3U	3U	6UJ	15U	6U	880	32J	8J	8J	22	15U	3U	3U	3U	3U	3U	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	-	3UJ	3U	3U	3U	3U	6UJ	15U	6U	37J	95J	14J	8J	77	15J	3U	3U	3U	3U	3U	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	-	3UJ	3U	3U	3U	3U	6UJ	15U	6U	30U	30U	9J	6J	22	15U	3U	3U	3U	3U	3U	-	-	-
Acetone	ug/L	N	6000	6U	-	6UJ	7J	6U	6U	6U	14J-	30U	12U	1800	160J	34J	80	69	30U	6J	14J	32	6U	6U	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	130	4800	1200J	1400	660	510	300	1500J-	3000	1400	9500	7600	480	270	490	1700	7	12	260	180	90	240	62	810
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	10U	10U	2U	1U	1U	5U	14	8	1U	1U	1U	-	-	-
Bromoform	ug/L	N	4	1U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
Carbon disulfide	ug/L	N	700	1U	-	1UJ	1U	1U	1U	1U	2UJ	5U	2U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	8U	8U	2U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-
Chloroethane	ug/L	N	5	1U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
Chloroform	ug/L	N	70	0.8U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	8U	8U	2U	0.8U	0.8U	4U	66	42	12	2J	0.8U	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	8U	8U	2U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
Cyclohexane	ug/L	N	100	160	180	120J	87	62	70	23	79J-	160	140	28J	20J	10J	7	3J	10U	15	19	81	24	22	-	-	-
Dibromochloromethane	ug/L	N	1	1U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	10U	10U	2U	1U	1U	5U	2J	1J	1U	1U	1U	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	20U	20U	4U	2U	2U	10U	2U	2U	2U	2U	2U	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	520	52	31J	49	11	17	30	47J-	340	20	870	440	11	13	17	72	4J	0.8U	7	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	32	-	9J	8	7	6	6	10J-	18J	18	29J	15J	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	1UJ	1U	1U	1U	1U	2UJ	5U	2U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	5U	5U	1U	0.5U	0.5U	3U	0.5U	0.5U	0.7J	1J	1J	-	-	-
Methylcyclohexane	ug/L	N	100	92	-	46J	32	19	23	4J	27J-	52	51	27J	12J	13	9	3J	5U	17	6	27	5	5	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	2UJ	2U	2U	2U	2U	4UJ	10U	1U	20U	20U	4U	2U	2U	10U	2U	2U	2U	2U	2U	-	-	-
Styrene	ug/L	N	100	1U	-	1UJ	1U	1U	1U	1U	2UJ	5U	2U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	8U	8U	2U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-
Toluene	ug/L	N	600	32	61	9J	200	63	40	72	28J-	54	28	10000	1600	260	77	110	510	0.9J	0.7U	3J	2J	1J	5J	2J	11
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	8U	8U	2U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	20U	20U	4U	2U	2U	10U	2U	2U	2U	2U	2U	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	3U	1U	10U	10U	2U	1U	1U	5U	1U	1U	1U	1U	1U	-	-	-
Xylene (total)	ug/L	N	1000	480	190	82J	110	29	48	67	160J-	710	140	6600	4300	2300	530	330	1100	5	7	39	1J	0.8U	1J	0.8U	3J
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	5400	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. NA - No Criterion Available for the Analyte
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Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276	MW-277	MW-277	MW-277
			Sample Date	07/08/2010	10/05/2010	02/15/2011	05/11/2011	08/10/2011	12/19/2012	08/13/2013	10/07/2014	11/22/2017	02/01/2018	10/05/2007	11/28/2007	01/29/2008	09/18/2008	04/14/2009	10/08/2009	04/06/2010	09/07/2010	05/10/2011	06/20/2013	09/16/2014	10/05/2007	11/15/2007	02/07/2008
			Field Sample ID	M275B1X-100708	M275B2	M275B3X	M275B4	M275B5X	M275B6X	M275B7X	M275B8X	M275C3X	M275C4X	M276A1	M276A2X	M276A3X	M276A4X	M276A5X	M276A6X	M276A7X	M276A8X	M276A9X	M276B1X	M276B2X	M277A1	M277A2X	M277A3X
			SDG	RFS52	RFS70	RFS87	RFT20	RFT55	RFX25	RFB88	CS166	CQ901	CQ960	1059716	1067242	1075238	1110903	1140444	1165848	RFS37	RFS66	RFT19	RFB13	CS156	1059716	1065827	1076506
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	2U	-	-	2U	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	-	-	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	1U	-	-	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	2U	-	-	2U	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	-	-	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	1U	-	-	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	1U	-	-	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	1U	-	-	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	3U	-	-	3U	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	-	-	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	3U	-	-	3U	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	-	-	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	3U	-	-	3U	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	-	-	3U	3U	3U
Acetone	ug/L	N	6000	-	-	-	-	-	6U	-	-	6U	6U	6U	6U	6U	60U	6U	6U	6U	6U	6U	-	-	8J	15J	6J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	230	940	1400	1500	990	570	210	49	37	82	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	1U	-	-	0.5U	0.5U	2J	1U	1U	10U	1U	1U	1U	1U	1U	-	-	11	1U	1U
Bromoform	ug/L	N	4	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	1U	-	-	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	3J	4J	3J
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
Chlorobenzene	ug/L	N	50	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
Chloroform	ug/L	N	70	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	15	1J	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	48	13	2J
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
Cyclohexane	ug/L	N	100	-	-	-	-	-	150	120	32	8	17	2U	2U	2U	20U	2U	2U	2U	2U	2U	-	-	2U	2U	2U
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	2J	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	2U	-	-	0.5U	0.5U	2U	2U	2U	20U	2U	2U	2U	2U	2U	-	-	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8J	2U	2U	0.8J	0.8U	0.8U	0.5U	0.6J	0.9J	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	1J	-	-	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	1U	-	-	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	1J	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	50	-	-	1J	2J	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	2U	-	-	0.5U	0.5U	2U	2U	2U	20U	2U	2U	2U	2U	2U	-	-	2U	2U	2U
Styrene	ug/L	N	100	-	-	-	-	-	1U	-	-	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	4J	13	17	19	14	8	2J	0.7J	0.7J	1	0.7U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	2U	-	-	0.5U	0.5U	2U	2U	2U	20U	2U	2U	2U	2U	2U	-	-	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	-	-	1U	1U	1U
Xylene (total)	ug/L	N	1000	1J	4J	5J	6J	5	3J	0.9J	0.5J	1	5	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8J	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	270	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-277	MW-277	MW-277	MW-277	MW-277	MW-277	MW-277	MW-277	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282
			Sample Date	09/10/2008	04/08/2009	10/07/2009	03/31/2010	08/17/2010	02/04/2011	06/20/2013	06/20/2014	04/02/2008	04/22/2008	09/23/2008	10/29/2008	05/14/2009	08/31/2009	12/07/2009	04/09/2010	07/08/2010	10/05/2010	02/16/2011	05/11/2011	08/11/2011	12/18/2012	03/29/2013	01/13/2014
			Field Sample ID	M277A4X	M277A5X	M277A6X	M277A7X	M277A8X	M277A9X	M277B1X	M277B2X	M282A1X	M282A2X	M282A3X	M282A4	M282A5	M282A6	M282A7	M282A9	M282B1X-100708	M282B2	M282B3X	M282B4	M282B5X	M282B6	M282B6X	M282B7X
			SDG	1109393	1139653	1165407	RFS36	RFS64	RFS83	RFB13	CS115	1084470	1087622	1111596	1117434	1144894	1160143	1174313	GWC54	RFS52	RFS70	RFS89	RFT20	RFT57	RFX24	RFY43	CP258
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	-	-	-	46	8J	-	-	-	-	-	-	-	-	-	-	3U	5J	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U
Acetone	ug/L	N	6000	19J	6U	6U	6U	6U	6U	-	-	-	220	72	-	-	-	-	-	-	-	-	-	-	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	210	200	75	100	150	57	18	49	13	11	34	8	5J	3J	1J	2J
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	2J	0.8U	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	1J
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	-	-	-	410	220	-	-	-	-	-	31	-	130	-	5J	12	6	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	64	53	12	8	40	21	7	30	7	9	36	5J	4J	4J	1J	3J
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	-	-	-	34	20	-	-	-	-	-	-	-	-	-	-	4J	2J	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5UJ
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	-	-	-	300	100	-	-	-	-	-	-	-	-	-	-	4J	3J	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	12	12	3J	3J	2J	1J	1J	2J	0.7J	1J	2J	0.7U	0.7U	0.7U	0.7U	3J
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	15	14	7	8	47	11	34	20	4J	2J	6	1J	1J	0.9J	0.8U	21
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	640	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283
			Sample Date	08/20/2014	09/17/2014	09/19/2014	10/28/2014	01/22/2015	04/14/2015	07/09/2015	10/15/2015	11/01/2017	11/17/2017	02/01/2018	04/02/2008	04/22/2008	09/23/2008	05/14/2009	08/31/2009	08/31/2009	12/02/2009	12/02/2009	04/08/2010	04/08/2010	07/08/2010	07/08/2010
			Field Sample ID	M282B8X	M282B9X	M282C1	M282C2X	M282C3X	M282C4X	M282C5X	M282C6X	M282D2X	M282D3X	M282D4X	M283A1X	M283A2X	M283A3X	M283A4	D0831093	M283A5	D1202093	M283A6	D0408103	M283A8	D0708103-100708	M283A9X-100708
			SDG	CP475	CP508	CS158	CP567	CP654	CP683	CP774	CP887	CQ861	CQ895	CQ960	1084470	1087622	1111596	1144894	1160143	1160143	1173449	1173449	GWC54	GWC54	RFS52	RFS52
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	16U	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	16U	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	16U	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2UJ	2U	-	2U	2U	2U	2U	2U	2U	-	2U	-	4U	40U	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1UJ	1U	-	1U	1U	1U	1U	1U	1U	-	1U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2UJ	2U	-	2U	2U	2U	2U	2U	2U	-	2U	-	4U	40U	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1UJ	1U	-	1U	1U	1U	1U	1U	1U	-	1U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1UJ	1U	-	1U	1U	1U	1U	1U	1U	-	1U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1UJ	1U	-	1U	1U	1U	1U	1U	1U	-	1U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3UJ	3U	-	3U	3U	4J	3U	3U	3U	-	3U	-	22	60U	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3UJ	3U	-	3U	3U	3U	3U	3U	3U	-	3U	-	6U	60U	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3UJ	3U	-	3U	3U	3U	3U	3U	3U	-	3U	-	6U	60U	-	-	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	6UJ	9J	-	6J	6U	6U	6U	6U	6U	-	6J	-	86	120U	-	-	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.8J	4	3	3	1	3	1	17	1	-	9	290	1200	8100	1100	1300	1300	10000	9300	11000	7300	8900	9000
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	4J	20U	-	-	-	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	0.5UJ	0.5U	-	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1UJ	1U	-	1U	1U	1U	1U	1U	1U	-	1U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	16U	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	25	16U	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	16U	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	2UJ	3J	-	4J	2U	19	2U	2U	2U	-	2U	-	85	270	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	4U	40U	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5UJ	2	2	1	0.7J	6	2	0.5U	0.6J	-	0.5U	1J	2J	16U	0.8U	0.9J	0.8J	8U	16U	8U	3J	8U	8U
Isopropylbenzene	ug/L	N	700	1UJ	1J	-	2J	1U	5J	1U	1U	1U	-	1U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1UJ	1U	-	1U	1U	1U	1U	1U	1U	-	1U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.7J	0.5U	-	0.5U	-	1U	10U	-	-	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	1UJ	1U	-	1J	1U	6	1U	1U	1U	-	1U	-	37	69J	-	-	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2UJ	2U	-	2U	2U	2U	2U	2U	0.5U	-	0.5U	-	4U	40U	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	N	100	1UJ	1U	-	1U	1U	1U	1U	1U	1U	-	1U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	16U	-	-	-	-	-	-	-	-	-	-
Toluene	ug/L	N	600	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5J	0.5U	0.5U	0.5U	-	0.5U	2J	9J	48J	5J	4J	3J	63	55J	47J	58	58	66
trans-1,2-Dichloroethene	ug/L	N	100	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	16U	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	4U	40U	-	-	-	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	20U	-	-	-	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.5UJ	0.7J	2	1	0.7J	4	0.5J	0.5U	2	-	0.5U	2J	7J	41J	7	7	7	14J	16U	13J	24	14J	18J
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	20U	53	110	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283
			Sample Date	10/05/2010	10/05/2010	02/15/2011	02/15/2011	05/11/2011	05/11/2011	08/10/2011	08/10/2011	12/20/2012	04/01/2013	01/13/2014	08/21/2014	09/18/2014	10/07/2014	10/28/2014	01/22/2015	04/14/2015	07/09/2015	10/15/2015	11/01/2017	11/01/2017	11/17/2017	02/01/2018	02/01/2018
			Field Sample ID	D1005103	M283B1	D0215112	M283B2X	D0511112	M283B3	D0810113	M283B4X	M283B5X	M283B6X	M283B7X	M283B8X	M283B9X	M283C1X	M283C2X	M283C3X	M283C4X	M283C5X	M283C6X	D1101177X	M283D1X	M283D2X	D0201188	M283D3X
			SDG	RFS70	RFS70	RFS87	RFS87	RFT20	RFT20	RFT55	RFT55	RFX26	RFY49	CP258	CP478	CP511	CS166	CP567	CP654	CP683	CP774	CP887	CQ861	CQ861	CQ895	CQ960	CQ960
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	16U	0.8U	8U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	16U	0.8U	8U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	20U	1U	10U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	16U	0.8U	8U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	40U	2U	20U	10UJ	20U	-	20U	10U	2U	10U	10U	2U	2U	-	10U	10U
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	20U	1U	10U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	20U	1U	10U	5UJ	10U	-	10U	5U	1U	5U	5U	1U	1U	-	5U	5U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	40U	2U	20U	10UJ	20U	-	20U	10U	2U	10U	10U	2U	2U	-	10U	10U
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	20U	1U	10U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	20U	1U	10U	5UJ	10U	-	10U	5U	1U	5U	5U	1U	1U	-	5U	5U
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	20U	1U	10U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	20U	1U	10U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	20U	1U	10U	5UJ	10U	-	10U	5U	1U	5U	5U	1U	1U	-	5U	5U
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	20U	1U	10U	5UJ	10U	-	10U	5U	1U	5U	5U	1U	1U	-	5U	5U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	60U	9J	30U	15UJ	30U	-	30U	39J	24	15U	15U	8J	8J	-	15U	15U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	60U	3U	30U	15UJ	30U	-	30U	15U	3U	15U	15U	3U	3U	-	15U	15U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	60U	3U	30U	15UJ	30U	-	30U	15U	3U	15U	15U	3U	3U	-	15U	15U
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	120U	28	60U	32J	64J	-	60U	140	68	51J	36J	19J	6U	-	30U	30U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	8400	8500	11000	11000	13000	13000	13000	13000	8500	3300	8000	8400J	6900	6700	6400	4300	5000	4300	3100	4100	4100	-	3900	3900
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	20U	1U	10U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	20U	1U	10U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	20U	1U	10U	3UJ	5U	-	5UJ	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	20U	1U	10U	5UJ	10U	-	10U	5U	1U	5U	5U	1U	1U	-	5U	5U
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	20U	1U	10U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	16U	0.8U	8U	3UJ	5U	-	5U	3U	0.5U	4J	3U	0.5U	0.5U	-	3U	3U
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	20U	1U	10U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	16U	0.8U	8U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	20U	1U	10U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	16U	0.8U	8U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	20U	1U	10U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	250	200	350	170J	180	-	340	290	280	280	140	250	250	-	190	190
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	20U	1U	10U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	40U	2U	20U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	4J	4J	16U	16U	20U	16U	8J	16U	16U	0.8J	8U	8J	8J	10	8J	14	19	20	7	32	31	-	3U	3U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	20U	1J	10U	9J	10U	-	10U	16J	11	12J	5U	11	11	-	5U	5U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	20U	1U	10U	5UJ	10U	-	10U	5U	1U	5U	5U	1U	1U	-	5U	5U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	10U	2J	5UJ	3UJ	5U	-	5U	3U	2	3U	3U	1J	1J	-	3U	3U
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	91J	62	160	45J	61	-	130	100	160	91	53	100	100	-	70	73
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	40U	2U	20U	10UJ	20U	-	20U	10U	2U	10U	10U	0.5U	0.5U	-	3U	3U
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	20U	1U	10U	5UJ	10U	-	10U	5U	1U	5U	5U	1U	1U	-	5U	5U
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	16U	0.8U	8U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
Toluene	ug/L	N	600	67	64	78J	82J	88J	85J	86	86J	58J	15	49J	83J	49	69	61	64	80	78	34	50	49	-	31	34
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	16U	0.8U	8U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	20U	1U	10U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	20U	1U	10U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	40U	2U	20U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	20U	1U	10U	3UJ	5U	-	5U	3U	0.5U	3U	3U	0.5U	0.5U	-	3U	3U
Xylene (total)	ug/L	N	1000	25	25	19J	20J	22J	23J	31J	21J	16U	11	16J	65J	56	70	58	91	170	140	79	310	310	-	140	150
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13000	13000	6700	9800	12000
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10000	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-285	MW-285	MW-285	MW-285	MW-285	MW-285	MW-285
			Sample Date	04/02/2008	04/22/2008	10/01/2008	10/30/2008	05/11/2009	08/27/2009	12/02/2009	07/07/2010	02/14/2011	08/08/2011	12/14/2012	12/14/2012	05/29/2013	09/19/2014	11/20/2017	01/29/2018	04/02/2008	04/22/2008	10/01/2008	05/12/2009	08/27/2009	12/03/2009	07/07/2010
			Field Sample ID	M284A1X	M284A2X	M284A3X	M284A4	M284A5	M284A6	M284A7	M284A8X-100707	M284A9X	M284B1X	D1214127	M284B2X	M284B3X	M284B4	M284B8X	M284B9X	M285A1X	M285A2X	M285A3X	M285A4	M285A5	M285A6	M285A7X-100707
			SDG	1084470	1087622	1112904	1117660	1144235	1159641	1173449	RFS52	RFS87	RFT51	RFX20	RFX20	RFZ68	CS158	CQ896	CQ953	1084470	1087622	1112904	1144454	1159641	1173658	RFS52
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	-	-	0.5U	0.5U	-	0.8U	0.8U	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	-	-	0.5U	0.5U	-	0.8U	0.8U	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	-	1U	1U	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	-	-	0.5U	0.5U	-	0.8U	0.8U	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	2U	-	-	-	-	-	-	-	2U	2U	-	-	2U	2U	-	2U	2U	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	-	1U	1U	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	1U	1U	-	1U	1U	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	2U	-	-	-	-	-	-	-	2U	2U	-	-	2U	2U	-	2U	2U	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	-	1U	1U	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	1U	1U	-	1U	1U	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	-	1U	1J	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	-	1U	1U	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	1U	1U	-	1U	1U	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	1U	1U	-	1U	1U	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	3U	-	-	-	-	-	-	-	3U	3U	-	-	3U	3U	-	3U	3U	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	3U	-	-	-	-	-	-	-	3U	3U	-	-	3U	3U	-	3U	3U	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	3U	3U	-	-	-	-	-	-	-	3U	3U	-	-	3U	3U	-	3U	3U	-	-	-	-
Acetone	ug/L	N	6000	-	14J	6U	-	-	-	-	-	-	-	6U	6U	-	-	6U	6U	-	16J	6U	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5J	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	230	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	-	3J	1U	-	-	-	-
Bromoform	ug/L	N	4	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	-	1U	1U	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	-	1U	1U	-	-	-	-
Carbon disulfide	ug/L	N	700	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	1U	1U	-	1U	1J	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	-	1U	1U	-	-	-	-
Chlorobenzene	ug/L	N	50	-	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	-	-	0.5U	0.5U	-	0.8U	0.8U	-	-	-	-
Chloroethane	ug/L	N	5	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	-	1U	1U	-	-	-	-
Chloroform	ug/L	N	70	-	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	-	-	0.5U	0.5U	-	17	0.8U	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	-	1U	1U	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	-	-	0.5U	0.5U	-	0.8U	0.8U	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	-	1U	1U	-	-	-	-
Cyclohexane	ug/L	N	100	-	2U	2U	-	-	-	-	-	-	-	2U	2U	-	-	2U	2U	-	4J	2U	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	-	1U	1U	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	2U	2U	-	-	-	-	-	-	-	2U	2U	-	-	0.5U	0.5U	-	2U	2U	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	1U	1U	-	1U	1U	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	1U	1U	-	1U	1U	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	0.5U	-	-	-	-	-	-	-	0.5U	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	1U	1U	-	1J	1U	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	2U	-	-	-	-	-	-	-	2U	2U	-	-	0.5U	0.5U	-	2U	2U	-	-	-	-
Styrene	ug/L	N	100	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	1U	1U	-	1U	1U	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	-	-	0.5U	0.5U	-	0.8U	0.8U	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	5J	1J	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	-	-	0.5U	0.5U	-	0.8U	0.8U	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	-	1U	1U	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	-	1U	1U	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	2U	2U	-	-	-	-	-	-	-	2U	2U	-	-	0.5U	0.5U	-	2U	2U	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	1U	1U	-	-	-	-	-	-	-	1U	1U	-	-	0.5U	0.5U	-	1U	1U	-	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	31J	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-285	MW-285	MW-285	MW-285	MW-285	MW-285	MW-285	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-287
			Sample Date	02/15/2011	08/08/2011	12/14/2012	05/29/2013	09/19/2014	11/21/2017	01/29/2018	04/04/2008	04/24/2008	10/01/2008	10/30/2008	05/11/2009	08/28/2009	12/07/2009	07/07/2010	02/14/2011	08/08/2011	12/13/2012	05/29/2013	05/29/2013	09/19/2014	11/16/2017	02/02/2018	04/04/2008
			Field Sample ID	M285A8X	M285A9X	M285B1X	M285B2X	M285B3	M285B6X	M285B7X	M286A1X	M286A2X	M286A3X	M286A4	M286A5	M286A6	M286A7	M286A8X-100707	M286A9X	M286B1X	M286B2X	D0529131	M286B3X	M286B4	M286B7X	M286B8X	M287A1X
			SDG	RFS87	RFT51	RFX20	RFZ68	CS158	CQ898	CQ953	1084980	1088064	1112904	1117660	1144235	1159807	1174313	RFS52	RFS87	RFT51	RFX18	RFZ68	RFZ68	CS158	CQ893	CQ962	1084980
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	-	0.5U	0.5U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	-	0.5U	0.5U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	0.5U	0.5UJ	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	-	0.5U	0.5U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	2U	-	-	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	-	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	0.5U	0.5U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	1U	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	2U	-	-	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	-	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	0.5U	0.5U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	1U	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	-	1J	-	-	0.8J	0.5U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	0.5U	0.5U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	0.5U	0.5U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	1U	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	1U	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	3U	-	-	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	-	-	-	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	3U	-	-	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	-	-	-	3U	3UJ	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	3U	-	-	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	-	-	-	3U	3UJ	3U
Acetone	ug/L	N	6000	-	-	6U	-	-	6U	6U	6U	10J	6U	-	-	-	-	-	-	-	6U	-	-	-	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	0.5U	0.5U	5
Bromoform	ug/L	N	4	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	0.5U	0.5U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	0.5U	0.5U	1U
Carbon disulfide	ug/L	N	700	-	-	1U	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	0.5U	0.5U	1U
Chlorobenzene	ug/L	N	50	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	-	0.5U	0.5U	0.8U
Chloroethane	ug/L	N	5	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	0.5U	0.5U	1U
Chloroform	ug/L	N	70	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	-	0.5U	0.5U	24
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	0.5U	0.5U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	-	0.5U	0.5U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	0.5U	0.5U	1U
Cyclohexane	ug/L	N	100	-	-	2U	-	-	2U	2U	2U	2U	4J	-	-	-	-	-	-	-	5	-	-	-	2J	3J	2U
Dibromochloromethane	ug/L	N	1	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	0.5U	0.5U	1J
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	2U	-	-	0.5U	0.5U	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	-	0.5U	0.5U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	1U	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	1U	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	0.5U	-	-	0.5U	0.5U	0.5U	0.6J	0.6J	-	-	-	-	-	-	-	0.5U	-	-	-	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	1U	-	-	1U	1U	11	2J	8	-	-	-	-	-	-	-	10	-	-	-	10	13	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	2U	-	-	0.5U	0.5U	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	-	0.5U	0.5U	2U
Styrene	ug/L	N	100	-	-	1U	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	-	0.5U	0.5U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	2J	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	-	0.5U	0.5U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	0.5U	0.5U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	0.5U	0.5U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	2U	-	-	0.5U	0.5U	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	-	0.5U	0.5U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	1U	-	-	0.5U	0.5U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	0.5U	0.5U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.9J	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	20U	20U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	320	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-287	MW-287	MW-287	MW-287	MW-287	MW-287	MW-287	MW-287	MW-287	MW-287	MW-287	MW-287	MW-287	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288
			Sample Date	04/24/2008	10/01/2008	05/12/2009	08/28/2009	12/07/2009	07/07/2010	02/16/2011	08/08/2011	12/17/2012	05/29/2013	10/08/2014	11/17/2017	02/02/2018	08/05/2008	05/11/2009	09/02/2009	12/08/2009	07/13/2010	02/17/2011	08/09/2011	12/17/2012	05/30/2013	10/08/2014
			Field Sample ID	M287A2X	M287A3X	M287A4	M287A5	M287A6	M287A7X-100707	M287A8X	M287A9X	M287B1	M287B2X	M287B3X	M287B6X	M287B7X	M288A1X	M288A2X	M288A3	M288A4	M288A6X-100713	M288A8X	M288A9X	M288B2	M288B3X	M288B4X
			SDG	1088064	1112904	1144454	1159807	1174313	RFS52	RFS89	RFT51	RFX22	RFZ68	CS167	CQ895	CQ962	1103859	1144240	1160325	1174313	RFS55	RFS90	RFT52	RFX22	RFZ71	CS167
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	-	-	-	-	-	-	0.8U	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	-	-	-	-	-	-	0.8U	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	-	-	-	-	-	1U	-	-	0.5U	0.5UJ	1U	-	-	-	-	-	-	1U	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	-	-	-	-	-	-	0.8U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	-	-	-	-	-	2U	-	-	2U	2U	2U	-	-	-	-	-	-	2U	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	-	-	-	-	-	-	1U	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	-	-	-	-	-	1U	-	-	1U	1U	1U	-	-	-	-	-	-	1U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	-	-	-	-	-	2U	-	-	2U	2U	2U	-	-	-	-	-	-	2U	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	-	-	-	-	-	-	1U	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	-	-	-	-	-	1U	-	-	1U	1U	1U	-	-	-	-	-	-	1U	-	-
1,2-Dichloroethane	ug/L	N	2	2J	7	9	-	-	-	-	-	1U	-	-	7	7	1U	-	-	-	-	-	-	1U	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	-	-	-	-	-	-	1U	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	-	-	-	-	-	1U	-	-	1U	1U	1U	-	-	-	-	-	-	1U	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	-	-	-	-	-	1U	-	-	1U	1U	1U	-	-	-	-	-	-	1U	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	-	-	-	-	-	3U	-	-	3U	3U	8J	-	-	-	-	-	-	3U	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	-	-	-	-	-	3U	-	-	3U	3UJ	3U	-	-	-	-	-	-	3U	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	-	-	-	-	-	3U	-	-	3U	3UJ	3U	-	-	-	-	-	-	3U	-	-
Acetone	ug/L	N	6000	9J	6U	6U	-	-	-	-	-	6U	-	-	6U	6U	80	-	-	-	-	-	-	6U	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	44	580	140	410	450	87	15	0.5U	1J	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	5	1U	1U	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	-	-	-	-	-	-	1U	-	-
Bromoform	ug/L	N	4	1U	1U	1U	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	-	-	-	-	-	-	1U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	-	-	-	-	-	-	1U	-	-
Carbon disulfide	ug/L	N	700	1U	9	1U	-	-	-	-	-	1U	-	-	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	-	-	-	-	-	-	1U	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	-	-	-	-	-	-	0.8U	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	-	-	-	-	-	-	1U	-	-
Chloroform	ug/L	N	70	25	16	0.8U	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	-	-	-	-	-	-	0.8U	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	-	-	-	-	-	-	1U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	-	-	-	-	-	-	0.8U	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	-	-	-	-	-	-	1U	-	-
Cyclohexane	ug/L	N	100	2U	2U	2U	-	-	-	-	-	2U	-	-	2U	2U	69	-	-	-	-	-	-	2U	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	-	-	-	-	-	-	1U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	-	-	-	-	-	2U	-	-	0.5U	0.5U	2U	-	-	-	-	-	-	2U	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	57	8	5J	30	4J	0.8U	0.8U	0.8U	0.5U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	-	-	-	-	-	1U	-	-	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	-	-	-	-	-	1U	-	-	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.9J	-	-	-	-	-	1J	-	-	0.6J	0.7J	0.5U	-	-	-	-	-	-	0.5U	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	1U	-	-	-	-	-	1U	-	-	1U	1U	28	-	-	-	-	-	-	1U	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	-	-	-	-	-	2U	-	-	0.5U	0.5U	2U	-	-	-	-	-	-	2U	-	-
Styrene	ug/L	N	100	1U	1U	1U	-	-	-	-	-	1U	-	-	1U	1U	1U	-	-	-	-	-	-	1U	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	-	-	-	-	-	-	0.8U	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.9J	120	4J	20	44	17	0.7U	0.7U	0.7U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	-	-	-	-	-	-	0.8U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	-	-	-	-	-	-	1U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	-	-	-	-	-	-	1U	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	-	-	-	-	-	2U	-	-	0.5U	0.5U	2U	-	-	-	-	-	-	2U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	-	-	-	-	-	1U	-	-	0.5U	0.5U	1U	-	-	-	-	-	-	1U	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	440	21	90	190	85	1J	0.8U	1J	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	20U	20U	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-288	MW-288	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-290	MW-290	MW-290	MW-290	MW-290	MW-290	MW-290	MW-290
			Sample Date	11/27/2017	01/31/2018	08/05/2008	10/30/2008	05/11/2009	08/28/2009	12/07/2009	07/20/2010	02/16/2011	08/09/2011	12/13/2012	05/30/2013	10/08/2014	11/15/2017	01/26/2018	05/14/2009	08/27/2009	12/04/2009	07/07/2010	02/14/2011	08/11/2011	12/13/2012	03/29/2013
			Field Sample ID	M288B8X	M288B9X	M289A1X	M289A2	M289A3X	M289A4	M289A5	M289A7X-100720	M289A9X	M289B1X	M289B3X	M289B4X	M289B5X	M289B8X	M289B9X	M290A1	M290A2	M290A3	M290A4X-100707	M290A5X	M290A6X	M290A7X	M290A8X
			SDG	CQ903	CQ958	1103859	1117660	1144240	1159807	1174313	RFS55	RFS89	RFT52	RFX18	RFZ71	CS167	CQ889	CQ952	1144894	1159641	1173883	RFS52	RFS87	RFT57	RFX18	RFY43
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.5U	1U	0.8U	-	-	-	-	-	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.5U	1U	0.8U	-	-	-	-	-	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5UJ	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	1U	1U	-	-	-	-	-	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.5U	1U	0.8U	-	-	-	-	-	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	2U	4U	2U	-	-	-	-	-	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	1U	1U	-	-	-	-	-	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	2U	1U	-	-	-	-	-	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	2U	4U	2U	-	-	-	-	-	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	1U	1U	-	-	-	-	-	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	2U	1U	-	-	-	-	-	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	1U	1U	-	-	-	-	-	1U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	1U	1U	-	-	-	-	-	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	2U	1U	-	-	-	-	-	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	2U	1U	-	-	-	-	-	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	6J	-	-	-	-	-	-	-	8J	-	-	32	21	3U	-	-	-	-	-	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3UJ	3U	-	-	-	-	-	-	-	3U	-	-	9J	14J	3U	-	-	-	-	-	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3UJ	3U	-	-	-	-	-	-	-	3U	-	-	3U	6U	3U	-	-	-	-	-	3U	3U
Acetone	ug/L	N	6000	6U	6U	16J	-	-	-	-	-	-	-	16J	-	-	120	36J	6U	-	-	-	-	-	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	**18**	0.5U	**21**	**33**	**8J**	**10**	**3J**	**5**	0.7J	**14J**	**1J**	0.5U	**1**	**63**	**3**	**10**	**8**	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	1U	1U	-	-	-	-	-	1U	1U
Bromoform	ug/L	N	4	0.5U	0.5U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	1U	1U	-	-	-	-	-	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	1U	1U	-	-	-	-	-	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	2U	1U	-	-	-	-	-	1U	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	1U	1U	-	-	-	-	-	1U	1U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.5U	1U	0.8U	-	-	-	-	-	0.8U	0.8U
Chloroethane	ug/L	N	5	0.5U	0.5U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	1U	1U	-	-	-	-	-	1U	1U
Chloroform	ug/L	N	70	0.5U	0.5U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.5U	1U	0.8U	-	-	-	-	-	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	1U	1U	-	-	-	-	-	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.5U	1U	0.8U	-	-	-	-	-	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	1U	1U	-	-	-	-	-	1U	1U
Cyclohexane	ug/L	N	100	3J	2U	**240**	-	-	-	-	-	-	-	**120**	-	-	**330**	**360**	30	-	-	-	-	-	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	1U	1U	-	-	-	-	-	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	2U	-	-	-	-	-	-	-	2U	-	-	0.5U	1U	2U	-	-	-	-	-	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	540	320	130	190	110	120	42	320	85	6	2	**730**	110	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	67	-	-	-	-	-	-	-	32	-	-	69	15	1U	-	-	-	-	-	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	2U	1U	-	-	-	-	-	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.7J	-	-	-	-	-	-	-	0.5U	-	-	0.5U	1U	0.5U	-	-	-	-	-	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	3J	1U	**280**	-	-	-	-	-	-	-	**240**	-	-	**250**	**210**	7	-	-	-	-	-	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	0.5U	0.5U	2U	-	-	-	-	-	-	-	2U	-	-	0.5U	1U	2U	-	-	-	-	-	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	2U	1U	-	-	-	-	-	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.5U	1U	0.8U	-	-	-	-	-	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	0.5U	13	5J	7U	5J	1J	2J	0.7U	7J	1J	0.7U	2	21	2	2J	2J	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.5U	1U	0.8U	-	-	-	-	-	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	1U	1U	-	-	-	-	-	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	1U	1U	-	-	-	-	-	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	2U	-	-	-	-	-	-	-	2U	-	-	0.5U	1U	2U	-	-	-	-	-	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	1U	-	-	-	-	-	-	-	1U	-	-	0.5U	1U	1U	-	-	-	-	-	1U	1U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	65	58	15J	27	16	19	7	56	14	1J	1	960	160	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	170	20U	-	-	-	-	-	-	-	-	-	-	-	13000	6600	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-290	MW-290	MW-290	MW-290	MW-290	MW-290	MW-290	MW-290	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291
			Sample Date	01/14/2014	08/20/2014	09/17/2014	10/21/2014	01/22/2015	04/15/2015	07/09/2015	10/27/2017	08/06/2008	05/12/2009	08/27/2009	11/30/2009	07/06/2010	02/14/2011	08/11/2011	12/14/2012	03/29/2013	01/14/2014	08/20/2014	09/17/2014	10/21/2014	01/22/2015	04/15/2015	07/09/2015
			Field Sample ID	M290A9X	M290B1X	M290B2X	M290B4X	M290B5X	M290B6X	M290B7X	M290C7X	M291A1X	M291A2	M291A3	M291A4	M291A5X-100706	M291A6X	M291A7X	M291A8X	M291C9X	M291D1X	M291D2X	M291D3X	M291D5X	M291D6X	M291D7X	M291D8X
			SDG	CP259	CP475	CP508	CP552	CP654	CP684	CP774	CQ848	1104159	1144454	1159641	1173202	RFS52	RFS87	RFT57	RFX20	RFY43	CP259	CP475	CP508	CP552	CP654	CP684	CP774
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	3U	3U	3UJ	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	3U	3U	3UJ	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	3U	3U	3UJ	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6UJ	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	6U	6U	6U	6UJ	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4J	0.5U	0.5U	0.5J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	12	1U	-	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	-	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U
Carbon disulfide	ug/L	N	700	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	54	3J	-	-	-	-	-	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2J	1U	-	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	-	-	-	-	-	2U	2U	2U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.6J
Methylcyclohexane	ug/L	N	100	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2UJ	2U	2U	2U	2U	2U	0.5U	2U	2U	-	-	-	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.7U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	11	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	-	-	-	-	-	2U	2U	2U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	-	-	-	-	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	20U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-291	MW-291	MW-292	MW-292	MW-292	MW-292R	MW-292R	MW-292R	MW-292R	MW-292R	MW-292R	MW-292R	MW-292R	MW-292R	MW-292R	MW-292R	MW-293	MW-293	MW-293	MW-293	MW-293	MW-293
			Sample Date	10/19/2015	10/27/2017	08/06/2008	05/13/2009	05/13/2009	01/15/2013	05/16/2013	01/15/2014	08/22/2014	09/16/2014	09/29/2014	10/24/2014	01/21/2015	04/13/2015	07/08/2015	10/16/2015	10/20/2017	08/05/2008	05/13/2009	09/02/2009	11/30/2009	07/09/2010	02/17/2011
			Field Sample ID	M291D9X	M291E5X	M292A1X	D0513093	M292A2	M292RA3X	M292RA4X	M292RA5X	M292RA6X	M292RA7X	M292RA8X	M292RA9X	M292RB1X	M292RB2X	M292RB3X	M292RB4X	M292RC1X	M293A1X	M293A2	M293A3	M293A4	M293A5X-100709	M293A6X
			SDG	CP892	CQ848	1104159	1144693	1144693	RFX31	RFZ51	CP260	CP481	CP507	CP520	CP559	CP651	CP682	CP773	CP889	CQ831	1103859	1144693	1160325	1173202	RFS52	RFS90
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	40U	8U	8U	8U	16U	8U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.8U	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	40U	8U	8U	8U	16U	8U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.8U	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	50U	10U	10U	10U	20U	10U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	40U	8U	8U	8U	16U	8U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.8U	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	100U	20U	20U	20U	40U	20U	2U	10U	4U	2UJ	2U	2U	2UJ	2U	2U	2U	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	50U	10U	10U	10U	20U	10U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	50U	10U	10U	10U	20U	10U	1U	5U	2U	1UJ	1U	1U	1UJ	1U	1U	1U	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	100U	20U	20U	20U	40U	20U	2U	10U	4U	2UJ	2U	2U	2UJ	2U	2U	2U	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	50U	10U	10U	10U	20U	10U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	50U	10U	10U	10U	20U	10U	1U	5U	2U	1UJ	1U	1U	1UJ	1U	1U	1U	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	50U	10U	10U	10U	20U	10U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	50U	10U	10U	10U	20U	10U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	50U	10U	10U	10U	20U	10U	1U	5U	2U	1UJ	1U	1U	1UJ	1U	1U	1U	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	50U	10U	10U	10U	20U	10U	1U	5U	2U	1UJ	1U	1U	1UJ	1U	1U	1U	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	150U	70J	78J	30U	110J	30U	35	15U	11J	13J	3U	3U	3UJ	4J	3U	3U	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	150U	30U	30U	30U	270	38J	6UJ	15U	6U	3UJ	3U	3U	3UJ	3U	3U	3U	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	150U	38J	47J	30U	190J	36J	3U	15U	6U	3UJ	3U	3U	5J-	4J	3U	3U	-	-	-	-	-
Acetone	ug/L	N	6000	6U	6U	360J	130J	130J	80J	370J	60U	85	30U	30J	30J	6U	6J	8J-	8J	6U	18J	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	19000	18000	17000	9800	11000	15000	230	170	160	88J	87	41	25J-	24	3	8	44	69	18	57	100
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	50U	10U	10U	10U	20U	10U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	6	-	-	-	-	-
Bromoform	ug/L	N	4	0.5U	0.5U	50U	10U	10U	10U	20U	10U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	50U	10U	10U	10U	20U	10U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	50U	10U	10U	10U	20U	10U	1U	5U	2U	1UJ	1U	1U	1J-	1U	1U	1U	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	50U	10U	10U	10U	20U	10U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	-	-	-	-	-
Chlorobenzene	ug/L	N	50	0.5U	0.5U	40U	8U	8U	8U	16U	8U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1J	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	0.5U	50U	10U	10U	10U	20U	10U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	-	-	-	-	-
Chloroform	ug/L	N	70	0.5U	0.5U	40U	8U	8U	8U	16U	8U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	26	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	50U	10U	10U	10U	20U	10U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	1U	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	40U	8U	8U	8U	16U	8U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.8U	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	50U	10U	10U	10U	20U	10U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	-	-	-	-	-
Cyclohexane	ug/L	N	100	2U	2U	1000	560	550	530	650	680	3J	10U	4J	2UJ	4J	6	4J-	4J	2U	16	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	50U	10U	10U	10U	20U	10U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1J	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	100U	20U	20U	20U	40U	20U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	2U	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	3000	1500	1600	2900	2600	2300	490	99	73	24J	20	27	14J-	10	2	11	2J	2J	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	87J	75	72	93	83J	76	55	11J	7J	3J	2J	2J	2J-	1J	1J	1U	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	50U	10U	10U	10U	20U	10U	1U	5U	2U	1UJ	1U	1U	1UJ	1U	1U	1U	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	25U	5U	5U	5U	10U	5U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	500	300	280	230	300	300	3J	6J	7J	2J	3J	5J	5J-	3J	1J	18	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	0.5U	120J	20U	20U	20U	40U	20U	2U	10U	4U	2UJ	2U	2U	2UJ	2U	0.5U	2U	-	-	-	-	-
Styrene	ug/L	N	100	1U	1U	50U	10U	10U	10U	20U	10U	1U	5U	2U	1UJ	1U	1U	1UJ	1U	1U	1U	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	40U	8U	8U	8U	16U	8U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.8U	-	-	-	-	-
Toluene	ug/L	N	600	0.5U	0.5U	19000	6100	6600	8700	9000	9300	260	85	68	22J	3	6	1J-	1	0.5U	25	7	7	2J	6	5J
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	40U	8U	8U	8U	16U	8U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.8U	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	50U	10U	10U	10U	20U	10U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	50U	10U	10U	10U	20U	10U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	100U	20U	20U	20U	40U	20U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	2U	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	50U	10U	10U	10U	20U	10U	0.5U	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.5U	0.5U	13000	5700	6200	14000	12000	13000	3000	560	380	110J	42	57	27J-	20	4	85	9	11	2J	8	6
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	20U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	550	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	20U	-	-	-	-	92000	81000	-	-	-	-	1500J	-	-	-	920	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-293	MW-293	MW-293R	MW-293R	MW-293R	MW-293R	MW-293R	MW-293R	MW-293R	MW-293R	MW-293R	MW-293R	MW-293R	MW-293R	MW-293R	MW-294	MW-294	MW-294	MW-294	MW-294	MW-294	MW-294	MW-294	MW-294
			Sample Date	08/11/2011	05/03/2012	01/21/2013	04/30/2013	05/14/2013	01/15/2014	08/22/2014	09/16/2014	10/24/2014	01/21/2015	04/13/2015	05/07/2015	07/08/2015	10/21/2015	10/20/2017	03/31/2009	10/06/2009	03/23/2010	08/27/2010	03/25/2011	09/20/2011	05/01/2012	08/28/2012	05/23/2013
			Field Sample ID	M293A7X	M293A8	M293RA9X	M293RB1X	M293RB2X	M293RB3X	M293B4X	M293RB5X	M293RB7X	M293RB8X	M293RB9X	M293RC1X	M293RC2X	M293RC3X	M293RC7X	M294A1X	M294A2X	M294A3X	M294A4X	M294A5X	M294A6X	M294A7X	M294A8X	M294A9X
			SDG	RFT57	RFU53	RFX38	RFZ22	RFZ43	CP260	CP481	CP507	CP559	CP651	CP682	CP706	CP773	CP897	CQ831	1138503	1165120	RFS35	RFS65	RFT02	RFT70	RFU50	RFV32	RFZ65
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	2U	-	2U	2U	2U	2U	2UJ	2U	4U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	1U	-	1U	1U	1U	1U	1UJ	1U	2U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	2U	-	2U	2U	2U	2U	2UJ	2U	4U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	1U	-	1U	1U	1U	1U	1UJ	1U	2U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	1U	-	1U	1U	1U	1U	1UJ	1U	2U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	1U	1U	-	1U	1U	1U	1U	1UJ	1U	2U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	6J	3U	-	3U	3U	3U	3U	3UJ	3U	6U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	3U	-	3U	3U	3U	3U	3UJ	3U	6U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	3U	3U	-	3U	3U	3U	3U	3UJ	3U	6U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	-	16J	6J	-	8J	9J	6U	6U	6UJ	6U	12U	6U	6UJ	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	540	140	6	9	7J	6	2	10	1J	1	100	100	46J-	32	6	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	-	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	1U	1UJ	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	-	1U	1U	-	1U	1U	1U	1U	1UJ	1U	2U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	-	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	-	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	-	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	-	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	-	23	2U	-	2U	5	2U	2U	2UJ	2U	20	46	14J-	21	7	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	-	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	2U	2U	-	2U	2U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	1J	5	1J	2J	10J	4J	0.6J	2	0.5UJ	0.5U	570	640	240J-	470	180	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	5	1U	-	1U	1U	1U	1U	1UJ	1U	31	39	23J-	31	14	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	1U	-	1U	1U	1U	1U	1UJ	1U	2U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	0.6J	0.5U	-	0.5U	0.5U	0.5J	0.7J	0.7J	0.7J	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	94	1U	-	2J	3J	1U	1U	1UJ	1U	19	42	17J-	23	18	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	2U	-	2U	2U	2U	2U	2UJ	2U	4U	2U	2UJ	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	-	1U	1U	-	1U	1U	1U	1U	1UJ	1U	2U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	12	10	2J	0.7U	7J	5J	0.5U	0.5J	0.5UJ	0.5U	120	130	16J-	71	4	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	2U	2U	-	2U	2U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	12	20	10	4J	50J	18	2	3	0.6J	0.5U	1400	1600	230J-	1400	250	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3300	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	85	-	-	-	-	-	-	-	-	-	-	8000	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-294	MW-295	MW-295	MW-295	MW-295	MW-295	MW-295	MW-295	MW-295	MW-295	MW-295	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296
			Sample Date	06/17/2014	03/31/2009	10/06/2009	03/23/2010	08/27/2010	03/25/2011	09/20/2011	05/01/2012	08/28/2012	05/23/2013	06/17/2014	03/31/2009	10/06/2009	03/23/2010	08/27/2010	03/25/2011	09/20/2011	05/01/2012	08/28/2012	04/30/2013	06/16/2014	06/17/2014	08/07/2015	08/31/2017
			Field Sample ID	M294B2X	M295A1X	M295A2X	M295A3X	M295A4X	M295A5X	M295A6X	M295A7X	M295A8X	M295A9X	M295B1X	M296A1X	M296A2X	M296A3X	M296A4X	M296A5X	M296A6X	M296A7X	M296A8X	M296A9X	M296B2X	M296B3X	M296B4X	M296B9X
			SDG	CS113	1138503	1165120	RFS35	RFS65	RFT02	RFT70	RFU50	RFV32	RFZ65	CS113	1138503	1165120	RFS35	RFS65	RFT02	RFT70	RFU50	RFV32	RFZ22	CP365	CS113	CS270	CS597
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	2U	2U	0.8U	-	0.5U	3U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	2U	2U	0.8U	-	0.5U	3U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	0.5U	3U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	2U	2U	0.8U	-	0.5U	3U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	2U	2U	4U	4U	2U	-	2U	10U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	2U	1U	1U	1U	2U	2U	1J	-	0.5U	3U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	1U	5U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	2U	2U	4U	4U	2U	-	2U	10U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	0.5U	3U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	1U	5U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	0.5U	3U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	0.5U	3U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	1U	5U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	1U	5U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	38	6J	20J	26	41	36	6U	6U	21	-	3U	15U	21
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	4J	70	52	160	40	6U	6U	3U	-	3U	15U	3UJ
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	31	3U	91	30	6U	7J	9J	-	3U	15U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	120	13J	38J	48	64	24	12U	12U	35	-	6U	30U	68
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	1J	0.5U	0.7J	0.5U	1J	0.5U	4J	2J	0.5U	0.5U	1000	330	1400	530	280	250	190	120	110	130J	180	150	170
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	0.5U	3U	0.5U
Bromoform	ug/L	N	4	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	0.5U	3U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	0.5U	3U	0.5U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	1U	5U	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	0.5U	3U	0.5U
Chlorobenzene	ug/L	N	50	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	2U	2U	0.8U	-	0.5U	3U	0.5U
Chloroethane	ug/L	N	5	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	0.5U	3U	0.5U
Chloroform	ug/L	N	70	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	2U	2U	0.8U	-	0.5U	3U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	0.5U	3U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	2U	2U	0.8U	-	0.5U	3U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	0.5U	3U	0.5U
Cyclohexane	ug/L	N	100	2U	3J	2U	2U	2U	6	2U	8	2U	2U	2U	200	87	150	140	120	120	120	110	140	-	150	150	110
Dibromochloromethane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	0.5U	3U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	4U	2U	2U	2U	4U	4U	2U	-	0.5U	3U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	810	320	770	190	36	33	31	21	19	20J	37	24	18
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	59	33	42	38	19	20	45	34	37	-	37	43	36
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	1U	5U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7J	0.5U	1U	0.5J	0.8J	0.5J	1U	1U	0.5U	-	0.5U	3U	2
Methylcyclohexane	ug/L	N	100	1U	2J	1U	1U	1U	4J	1U	9	1U	1U	1U	110	61	80	100	79	70	60	59	73	-	68	73	60
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	2U	2U	4U	4U	2U	-	2U	10U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	1U	5U	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	2U	2U	0.8U	-	0.5U	3U	0.5U
Toluene	ug/L	N	600	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	79	18	61	25	17	19	28	20	23	17J	27	29	28
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	2U	2U	0.8U	-	0.5U	3U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	0.5U	3U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	0.5U	3U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	4U	2U	2U	2U	4U	4U	2U	-	0.5U	3U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	2U	1U	1U	1U	2U	2U	1U	-	0.5U	3U	0.5U
Xylene (total)	ug/L	N	1000	0.5U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	510	130	520	200	180	140	56	46	28	33J	50	37	37
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-297	MW-297	MW-297	MW-297	MW-297	MW-297	MW-297	MW-297	MW-297	MW-297	MW-297	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R
			Sample Date	03/31/2009	10/01/2009	03/17/2010	08/19/2010	03/29/2011	09/22/2011	05/03/2012	08/31/2012	05/23/2013	09/23/2014	02/24/2015	01/21/2013	05/16/2013	05/16/2013	01/15/2014	08/22/2014	09/16/2014	09/29/2014	10/27/2014	01/29/2015	04/15/2015	07/08/2015	07/08/2015	10/16/2015
			Field Sample ID	M297A1X	M297A2X	M297A3X	M297A4X	M297A5X	M297A6X	M297A7X	M297A8X	M297A9X	M297B1X	M297B2X	M305RA1X	D0516137	M305RA3X	M305RA4X	M305RA5X	M305RA6X	M305RA7X	M305RA8X	M305RA9X	M305RB1X	D0708157	M305RB2X	D1016157
			SDG	1138503	1164446	RFS33	RFS64	RFT03	RFT71	RFU52	RFV33	RFZ65	CS159	CS203	RFX38	RFZ51	RFZ51	CP260	CP481	CP507	CP520	CP583	CP658	CP684	CP773	CP773	CP889
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	4U	4U	4U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	4U	4U	4U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	5U	5U	5U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	4U	4U	4U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	10U	10U	10U	40U	10U	2UJ	2U	2U	2UJ	2UJ	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	5U	5U	5U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	5U	5U	20U	5U	1UJ	1U	1U	1UJ	1UJ	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	10U	10U	10U	40U	10U	2UJ	2U	2U	2UJ	2UJ	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	5U	5U	5U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	5U	5U	20U	5U	1UJ	1U	1U	1UJ	1UJ	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	5U	5U	5U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	5U	5U	5U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	5U	5U	20U	5U	1UJ	1U	1U	1UJ	1UJ	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	5U	5U	20U	5U	1UJ	1U	1U	1UJ	1UJ	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	9J	15U	15U	15U	260	3100	79	90J	3U	7J	3UJ	3UJ	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	5J	64	63	15U	75J	270	15U	10J	3U	3U	3UJ	3UJ	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3J	48J	15U	15U	15U	100J	15U	5J	3U	3U	3UJ	3UJ	3U
Acetone	ug/L	N	6000	14J	6U	6U	12J	6U	6U	6U	7J	8J	10J	6U	25	35J	30U	30U	1200	19000	460	760J	7J	22	9J-	7J-	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	940	6000	6200	8400	1800	11000	2000	740J	710	300	96J-	96J-	19
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	5U	5U	5U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	5U	5U	5U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	5U	5U	5U	3U	10U	3U	0.5UJ	0.5U	0.5UJ	0.5UJ	0.5UJ	0.5U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	5U	5U	20U	7J	1UJ	1U	1U	1UJ	1UJ	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	5U	5U	5U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	4U	4U	4U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	5U	5U	5U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	4U	4U	4U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	5U	5U	5U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5J
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	4U	4U	4U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	5U	5U	5U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	130	310	380	390	240	1000	410	61J	87	60	27J-	23J-	7
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	5U	5U	5U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	10U	10U	10U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	220	1100	1300	1100	2600	2600	790	210J	220	93	18J-	18J-	8
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	6	29	35	35	130	89J	27	11J	11	5	2J-	1J-	1J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	5U	5U	20U	5U	1UJ	1U	1U	1UJ	1UJ	1U
Methyl-t-butyl ether	ug/L	N	70	21	8	1J	4J	3J	4J	1J	4J	6	2	6	0.5U	3U	3U	3U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	74	120	140	190	440	950	300	74J	70	51	17J-	15J-	2J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	10U	10U	10U	40U	10U	2UJ	2U	2U	2UJ	2UJ	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	5U	5U	20U	5U	1UJ	1U	1U	1UJ	1UJ	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	4U	4U	4U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	370	370	380	1200	4500	15000	2600	590J	820	200	5J-	6J-	0.8J
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	4U	4U	4U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	5U	5U	5U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	5U	5U	5U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	10U	10U	10U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	5U	5U	5U	3U	10U	3U	0.5UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	990	2100	2000	2800	14000	14000	4100	1100J	1200	480	35J-	38J-	2J
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	7400	24000	24000	-	-	-	-	7500J	-	-	-	-	370

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-305R	MW-305R	MW-305R	MW-306	MW-306	MW-306	MW-306	MW-306	MW-316	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R	MW-317	MW-317R	MW-317R
			Sample Date	10/16/2015	10/23/2017	01/15/2018	12/13/2011	09/04/2012	07/22/2013	06/20/2014	12/19/2014	07/08/2015	01/15/2013	05/14/2013	01/15/2014	08/22/2014	08/22/2014	09/16/2014	09/16/2014	09/29/2014	10/23/2014	01/21/2015	04/13/2015	10/23/2017	10/24/2017	01/22/2013	03/28/2013
			Field Sample ID	M305RB3X	M305RB9X	M305RC1X	M306A1	M306A2	M306A3X	M306A4X	M306A5X	M316RB2X	M316RA2X	M316RA3X	M316RA4X	D08221472	M316RA5X	D0916147	M316RA6X	M316RA7X	M316RA8X	M316RA9X	M316RB1X	M316RB9X	D1024177	M317RA2X	D03281310
			SDG	CP889	CQ834	CQ941	RFT95	RFV34	RFB46	CS115	CS193	CP773	RFX31	RFZ43	CP260	CP481	CP481	CP507	CP507	CP520	CP557	CP651	CP682	CQ834	CQ837	RFX39	RFY42
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	1UJ	4U	8U	4U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	8U	8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	1UJ	4U	8U	4U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	8U	8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1UJ	5U	10U	5U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	10U	10U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	1UJ	4U	8U	4U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	8U	8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	4UJ	10U	20U	10U	20U	10U	10U	10U	10U	4U	10U	2U	2U	2U	20U	20U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1UJ	5U	10U	5U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	10U	10U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	2UJ	5U	10U	5U	10U	5U	5U	5U	5U	2U	5U	1U	1U	1U	10U	10U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	4UJ	10U	20U	10U	20U	10U	10U	10U	10U	4U	10U	2U	2U	2U	20U	20U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1UJ	5U	10U	5U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	10U	10U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	2UJ	5U	10U	5U	10U	5U	5U	5U	5U	2U	5U	1U	1U	1U	10U	10U
1,2-Dichloroethane	ug/L	N	2	0.8J	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1UJ	5U	10U	5U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	10U	10U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1UJ	5U	10U	5U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	10U	10U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	2UJ	5U	10U	5U	10U	5U	5U	5U	5U	2U	5U	1U	1U	1U	10U	10U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	2UJ	5U	10U	5U	10U	5U	5U	5U	5U	2U	5U	1U	1U	1U	10U	10U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	4J	3U	3U	7J-	45J	33J	15U	41J	42J	25J	30J	29J	110	15U	19	3U	3U	30U	30U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	10J-	27J	170	15U	30U	19UJ	15U	15U	15U	6U	15U	20	3U	3U	62J	110
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	6UJ	15U	120	15U	30U	15U	15U	15U	15U	6U	15U	6J	3U	3U	31J	49J
Acetone	ug/L	N	6000	6U	6U	6U	7J	8J	6J	6U	6U	26J-	150	100J	30U	120J	130	110	110	85J	470	30U	46	6U	6U	60U	60U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	16	0.5U	0.5U	6	6	5J	4	3	46J-	5500	8300	8000	610	630	89	110	79	8	65	100	12	220	11000	12000
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1UJ	5U	10U	5U	5U	3U	3U	3U	3U	1UJ	3U	0.5U	0.5U	0.5U	10U	10U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1UJ	5U	10U	5U	5U	3U	3U	3U	3U	1UJ	3U	0.5U	0.5U	0.5U	10U	10U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1UJ	5U	10U	5U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	10U	10U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	2UJ	5U	10U	5U	10U	5U	5U	5U	5U	2U	5U	1U	1U	1U	10U	10U
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1UJ	5U	10U	5U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	10U	10U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	1UJ	4U	8U	4U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	8U	8U
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1UJ	5U	10U	5U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	10U	10U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	1UJ	4U	8U	4U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	8U	8U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5UJ	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1UJ	5U	10U	5U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	10U	10U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	1UJ	4U	8U	4U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	8U	8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1UJ	5U	10U	5U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	10U	10U
Cyclohexane	ug/L	N	100	6	2U	2U	39	42	29	21	20	9J-	710	520	530	88	110	10U	10U	10U	4U	10U	8	7	4J	340	670
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1UJ	5U	10U	5U	5U	3U	3U	3U	3U	1UJ	3U	0.5U	0.5U	0.5U	10U	10U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	2U	2U	2U	0.5U	0.5U	1UJ	10U	20U	10U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	20U	20U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	7	0.5U	0.5U	4J	4J	3J	3	2	110J-	2600	3000	2700	6000	6400	2700	2800	1200	560	250	210	19	43	1700	2600
Isopropylbenzene	ug/L	N	700	1J	1U	1U	42	40	32	29	48	20J-	100	120	75	270	280	140	160	100	74	35	29	6	1U	63	87
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	2UJ	5U	10U	5U	10U	5U	5U	5U	5U	2U	5U	1U	1U	1U	10U	10U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.7J	0.6J	0.5J	0.6J	4	1UJ	3U	5U	3U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	5U	5U
Methylcyclohexane	ug/L	N	100	2J	1U	1U	74	74	67	58	69	5J-	400	210	240	110	120	24J	18J	7J	6J	5U	14	1U	3J	170	400
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	0.5U	0.5U	2U	2U	2U	2U	2U	4UJ	10U	20U	10U	20U	10U	10U	10U	10U	4U	10U	2U	0.5U	0.5U	20U	20U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	2UJ	5U	10U	5U	10U	5U	5U	5U	5U	2U	5U	1U	1U	1U	10U	10U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	1UJ	4U	8U	4U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	8U	8U
Toluene	ug/L	N	600	0.7J	0.5U	0.5U	4J	10	3J	3	3	5J-	440	620	330	260	280	58	69	35	8	6	6	0.6J	5	1400	4100J
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	1UJ	4U	8U	4U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	8U	8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1UJ	5U	10U	5U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	10U	10U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1UJ	5U	10U	5U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	10U	10U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	2U	2U	2U	0.5U	0.5U	1UJ	10U	20U	10U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	20U	20U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1UJ	5U	10U	5U	5U	3U	3U	3U	3U	1U	3U	0.5U	0.5U	0.5U	10U	10U
Xylene (total)	ug/L	N	1000	1J	0.5U	0.5U	8	11	8	7	8	530J-	11000	12000	6300	25000	26000	12000	12000	5400	3000	710	720	81	28	5400	11000J
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	20U	20U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2600	1000	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	370	-	-	-	-	-	-	-	-	49000	47000	-	-	-	-	-	-	26000	-	-	-	-	55000	64000

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-318R	MW-318R	MW-318R	MW-318R	MW-318RR	MW-318RR	MW-319	MW-319R	MW-319R
			Sample Date	03/28/2013	01/16/2014	08/22/2014	09/16/2014	09/29/2014	09/29/2014	10/27/2014	10/27/2014	01/29/2015	01/29/2015	04/15/2015	07/08/2015	10/22/2015	10/24/2017	01/16/2018	01/07/2013	05/16/2013	04/15/2015	07/08/2015	10/24/2017	01/18/2018	01/15/2014	01/17/2013	05/14/2013
			Field Sample ID	M317RA3X	M317RA4X	M317RA5X	M317RA6X	D0929147	M317RA7X	D1027147	M317RA8X	D0129157	M317RA9X	M317RB1X	M317RB2X	M317RB3X	M317RB9X	M317RC1X	M318RA1X	M318RA2X	M318RA5X	M318RA6X	M318RRB4X	M318RRB5X	M319A3X	M319RA1X	M319RA2X
			SDG	RFY42	CP261	CP481	CP507	CP520	CP520	CP583	CP583	CP658	CP658	CP684	CP773	CP898	CQ837	CQ942	RFX28	RFZ51	CP684	CP773	CQ837	CQ944	CP260	RFX35	RFZ43
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	8U	8U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	2U	4U	0.5U	-	0.5U	0.5U	0.8U	4U	8U
1,1,1-Trichloroethane	ug/L	N	30	8U	8U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	2U	4U	0.5U	-	0.5U	0.5U	0.8U	4U	8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	10U	10U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	3U	5U	0.5U	-	0.5U	0.5U	1U	5U	10U
1,1,2-Trichloroethane	ug/L	N	3	8U	8U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	2U	4U	0.5U	-	0.5U	0.5U	0.8U	4U	8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	20U	20U	20U	4U	10U	10U	10UJ	10UJ	2U	2U	2U	2UJ	2U	2U	2U	5U	10U	2U	-	2U	2U	2U	10U	20U
1,1-Dichloroethane	ug/L	N	50	10U	10U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	3U	5U	0.5U	-	0.5U	0.5U	1U	5U	10U
1,2,4-Trichlorobenzene	ug/L	N	9	10U	10U	10U	2U	5U	5U	5UJ	5UJ	1U	1U	1U	1UJ	1U	1U	1U	3U	5U	1U	-	1U	1U	1U	5U	10U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	20U	20U	20U	4U	10U	10U	10UJ	10UJ	2U	2U	2U	2UJ	2U	2U	2U	5U	10U	2U	-	2U	2U	2U	10U	20U
1,2-Dibromoethane	ug/L	N	0	10U	10U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	3U	5U	0.5U	-	0.5U	0.5U	1U	5U	10U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	10U	10U	10U	2U	5U	5U	5UJ	5UJ	1U	1U	1U	1UJ	1U	1U	1U	3U	5U	1U	-	1U	1U	1U	5U	10U
1,2-Dichloroethane	ug/L	N	2	10U	10U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	3U	5U	0.5U	-	0.5U	0.5U	1U	5U	10U
1,2-Dichloropropane	ug/L	N	1	10U	10U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	3U	5U	0.5U	-	0.5U	0.5U	1U	5U	10U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	10U	10U	10U	2U	5U	5U	5UJ	5UJ	1U	1U	1U	1UJ	1U	1U	1U	3U	5U	1U	-	1U	1U	1U	5U	10U
1,4-Dichlorobenzene	ug/L	N	75	10U	10U	10U	2U	5U	5U	5UJ	5UJ	1U	1U	1U	1UJ	1U	1U	1U	3U	5U	1U	-	1U	1U	1U	5U	10U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	31J	30U	58J	21	20J	19J	40J	40J	15	14	8J	6J-	3U	3U	3U	8U	16J	360	100J-	3U	3U	15	95	63J
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	100	41J	30U	6U	15U	15U	15UJ	15UJ	3U	3U	3U	3UJ	3U	3U	3U	100	75	8J	5J-	3U	3U	3U	15U	130
4-Methyl-2-pentanone	ug/L	N	100	46J	30U	30U	6U	15U	15U	15UJ	15UJ	6J	6J	5J	6J-	10J	3U	3U	26	54	10	9J-	12	3U	4J	15U	30U
Acetone	ug/L	N	6000	60U	68J	94J	54	42J	40J	100J	100J	38	38	20J	17J-	6U	6U	6U	15U	59J	1100	440J-	6U	6U	6U	210	210
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	12000	11000	6900	2800	3300	3300	4800J	4300J	440	440	330	180J-	140	220	3	1800	5000	27	53J-	220	93	800	1100	1700
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	10U	10U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	3U	5U	0.5U	-	0.5U	0.5U	1U	5U	10U
Bromoform	ug/L	N	4	10U	10U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	3U	5U	0.5U	-	0.5U	0.5U	1U	5U	10U
Bromomethane (Methyl bromide)	ug/L	N	10	10U	10U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	3U	5U	0.5UJ	-	0.5U	0.5U	1U	5U	10U
Carbon disulfide	ug/L	N	700	10U	10U	10U	2U	5U	5U	5UJ	5UJ	1U	1U	1U	1UJ	1U	1U	1U	3U	5U	1U	-	1U	1U	1U	5U	10U
Carbon Tetrachloride	ug/L	N	1	10U	10U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	3U	5U	0.5U	-	0.5U	0.5UJ	1U	5U	10U
Chlorobenzene	ug/L	N	50	8U	8U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	2U	4U	0.5U	-	0.5U	0.5U	0.8U	4U	8U
Chloroethane	ug/L	N	5	10U	10U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	3U	5U	0.5U	-	0.5U	0.5U	1U	5U	10U
Chloroform	ug/L	N	70	8U	8U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	2U	4U	0.5U	-	0.5U	0.5U	0.8U	4U	8U
Chloromethane (Methyl chloride)	ug/L	N	NS	10U	10U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	3U	5U	0.5U	-	0.5U	0.5U	1U	5U	10U
cis-1,2-Dichloroethene	ug/L	N	70	8U	8U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	2U	4U	0.5U	-	0.5U	0.5U	0.8U	4U	8U
cis-1,3-Dichloropropene	ug/L	N	1	10U	10U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	3U	5U	0.5U	-	0.5U	0.5U	1U	5U	10U
Cyclohexane	ug/L	N	100	650	740	20U	74	10U	10U	96J	66J	27	27	15	13J-	13	4J	2U	420	500	14	11J-	8	13	500	730	1400
Dibromochloromethane	ug/L	N	1	10U	10U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	3U	5U	0.5U	-	0.5U	0.5U	1U	5U	10U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	20U	20U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	5U	10U	0.5U	-	0.5U	0.5U	2U	10U	20U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	2400	2500	930	420	310	310	550J	500J	110	100	57	35J-	28	42	2	870	2200	9	32J-	100	48	1700	3500	3500
Isopropylbenzene	ug/L	N	700	74	96	18J	16	11J	11J	26J	22J	7	6	4J	4J-	2J	1U	1U	28	66	1U	8J-	2J	1J	85	140	230
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	10U	10U	10U	2U	5U	5U	5UJ	5UJ	1U	1U	1U	1UJ	1U	1U	1U	3U	5U	1U	-	1U	1U	1U	5U	10U
Methyl-t-butyl ether	ug/L	N	70	5U	5U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	3U	0.5U	-	0.5U	0.5U	0.5U	3U	5U
Methylcyclohexane	ug/L	N	100	330	480	10U	110	5U	5U	27J	18J	8	7	4J	7J-	17	3J	2J	210	190	9	24J-	1U	3J	310	610	1200
Methylene chloride (Dichloromethane)	ug/L	N	3	20U	20U	20U	4U	10U	10U	10UJ	10UJ	2U	2U	2U	2UJ	2U	0.5U	0.5U	5U	10U	2U	-	0.5U	0.5U	2U	10U	20U
Styrene	ug/L	N	100	10U	10U	10U	2U	5U	5U	5UJ	5UJ	1U	1U	1U	1UJ	1U	1U	1U	3U	5U	1U	-	1U	1U	1U	5U	10U
Tetrachloroethene	ug/L	N	1	8U	8U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	2U	4U	0.5U	-	0.5U	0.5U	0.8U	4U	8U
Toluene	ug/L	N	600	2800J	3200	1800	820	350	350	410J	380J	2	2	2	2J-	2	5	0.5U	330	420	11	21J-	13	3	130	280	300
trans-1,2-Dichloroethene	ug/L	N	100	8U	8U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	2U	4U	0.5U	-	0.5U	0.5U	0.8U	4U	8U
trans-1,3-Dichloropropene	ug/L	N	1	10U	10U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	3U	5U	0.5U	-	0.5U	0.5U	1U	5U	10U
Trichloroethene (Trichloroethylene)	ug/L	N	1	10U	10U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	3U	5U	0.5U	-	0.5U	0.5U	1U	5U	10U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	20U	20U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	5U	10U	0.5U	-	0.5U	0.5U	2U	10U	20U
Vinyl chloride (Chloroethene)	ug/L	N	1	10U	10U	5U	1U	3U	3U	3UJ	3UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	3U	5U	0.5U	-	0.5U	0.5U	1U	5U	10U
Xylene (total)	ug/L	N	1000	7500J	10000	3300	1900	1400	1400	2700J	2400J	100	100	20	32J-	28	27	5	2600	2500	110	730J-	160	49	3600	10000	11000
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	1100	110	-	-	-	-	1600	630	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	71000	-	-	-	-	-	17000J	17000J	-	-	-	-	1200	-	-	18000	26000	-	-	-	-	-	28000	35000

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-319R	MW-319R	MW-319R	MW-319R	MW-319R	MW-319R	MW-319R	MW-319R	MW-321	MW-321	MW-321	MW-321	MW-321	MW-321	MW-321	MW-321	MW-321	MW-321	MW-321	MW-321	MW-329	MW-329	MW-329	MW-329
			Sample Date	08/22/2014	09/16/2014	09/29/2014	10/23/2014	01/21/2015	05/07/2015	07/08/2015	10/23/2017	01/07/2013	05/14/2013	01/14/2014	08/21/2014	09/18/2014	10/21/2014	01/20/2015	04/16/2015	07/08/2015	10/21/2015	10/25/2017	01/16/2018	04/23/2012	06/21/2012	11/14/2012	05/09/2013
			Field Sample ID	M319RA3X	M319RA4X	M319RA5X	M319RA6X	M319RA7X	M319RA8X	M319RA9X	M319RB7X	M321A1X	M321A2X	M321A3X	M321A4X	M321A5X	M321A7X	M321A8X	M321A9X	M321B1X	M321B2X	M321B9X	M321C1X	M329A1X	M329A2X	M329A3X	M329A5X
			SDG	CP481	CP507	CP520	CP557	CP651	CP706	CP773	CQ834	RFX28	RFZ43	CP259	CP478	CP511	CP552	CP649	CP685	CP773	CP897	CQ841	CQ942	RFU48	RFU90	RFX05	RFZ32
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2UJ	2U	2U	2U	2UJ	2UJ	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1UJ	1U	1U	1U	1UJ	1UJ	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2UJ	2U	2U	2U	2UJ	2UJ	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1UJ	1U	1U	1U	1UJ	1UJ	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1UJ	1U	1U	1U	1UJ	1UJ	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1UJ	1U	1U	1U	1UJ	1UJ	1U	1U	1U	1J	1J	1J	2J
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	4J	3U	5J	3U	3U	3U	3UJ	3U	3U	3U	3U	3UJ	3U	3U	3U	3UJ	3UJ	3U	3U	3U	3U	3U	3U	3UJ
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3UJ	3U	3U	3U	3UJ	3UJ	3U	3U	3U	3U	3U	3U	3UJ
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3UJ	3U	3U	3U	3UJ	3UJ	3U	3U	3U	3U	3U	3U	3UJ
Acetone	ug/L	N	6000	43	13J	47	6U	6U	6U	6UJ	6U	6U	6U	6U	6UJ	6U	6U	6U	6UJ	6UJ	6U	6U	6U	6U	6U	6U	6UJ
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	5	0.5U	10	14	5	48	3J-	0.5U	0.6J	0.5U	0.5U	1J	11	21	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	6	14	6	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	1U	1U	1U	1U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1UJ	1U	1U	1U	1UJ	1UJ	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5UJ	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	14	13	2J	9
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	7	59	18	73	2UJ	2U	2U	2U	3J	4J	70	200	2U	2UJ	2UJ	2U	2U	2U	10	11	14	13
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	2U	2U	2U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	5	0.5U	10	12	9	250	1J-	0.5U	4J	0.8U	0.8U	0.5UJ	47	120	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1J	1U	3J	9	2J	17	1UJ	1U	1U	1U	1U	1UJ	8	15	1U	1UJ	1UJ	1U	1U	1U	5J	3J	5J	8
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1UJ	1U	1U	1U	1UJ	1UJ	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	2J	32	7	22	1UJ	1U	1U	1U	1U	1UJ	24	100	1U	1UJ	1UJ	1U	1U	1U	14	14	16	9
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2UJ	0.5U	2U	2U	2U	2UJ	2U	2U	2U	2UJ	2UJ	2U	0.5U	0.5U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1UJ	1U	1U	1U	1UJ	1UJ	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	1	0.5U	3	2	0.5U	1	0.6J-	0.5U	6	0.7U	0.7U	0.5UJ	2	4	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	2U	2U	2U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	21	1	25	49	0.7J	15	3J-	0.5U	18	0.8U	0.8U	0.5UJ	14	25	0.5U	0.5UJ	0.6J-	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	20U	-	-	-	-	-	-	-	-	-	-	20U	20U	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	1300	-	-	-	-	130	-	-	-	-	-	-	-	-	20U	-	-	-	-	160	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-329	MW-329	MW-329	MW-329	MW-329	MW-329	MW-329R	MW-329R	MW-330	MW-330	MW-330	MW-330	MW-330	MW-330	MW-330	MW-330	MW-330	MW-330	MW-330	MW-330	MW-331	MW-331	MW-331
			Sample Date	07/02/2013	10/15/2013	12/18/2013	07/09/2014	03/10/2015	07/14/2015	10/18/2017	01/09/2018	01/17/2013	05/17/2013	01/17/2014	08/21/2014	09/18/2014	10/27/2014	01/20/2015	04/14/2015	04/14/2015	07/08/2015	10/22/2015	10/31/2017	01/04/2013	05/17/2013	01/16/2014
			Field Sample ID	M329A6X	M329A7X	M329A8X	M329A9X	M329B1X	M329B2X	M329RC2X	M329RC3X	M330A1X	M330A2X	M330A3X	M330A4X	M330A5X	M330A6X	M330A7X	D0414157	M330A8X	M330A9X	M330B1X	M330B7X	M331A1X	M331A2X	M331A3X
			SDG	CP028	CP143	CP243	CP406	CP664	CP779	CQ825	CQ935	RFX35	RFZ54	CP262	CP478	CP511	CP583	CP649	CP683	CP683	CP773	CP898	CQ858	RFX27	RFZ54	CP261
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	8U	0.8U	0.5U	0.5U	0.5U	1UJ	0.5U	16U	16U	8U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	8U	4U	8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	8U	0.8U	0.5U	0.5U	0.5U	1UJ	0.5U	16U	16U	8U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	8U	4U	8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	10U	1U	0.5U	0.5U	0.5U	1UJ	0.5U	20U	20U	10U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	10U	5U	10U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	8U	0.8U	0.5U	0.5U	0.5U	1UJ	0.5U	16U	16U	8U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	8U	4U	8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	20U	2U	2U	2U	2U	4UJ	2U	40U	40U	20U	20UJ	40U	20UJ	20U	10U	10U	20UJ	4U	4U	20U	10U	20U
1,1-Dichloroethane	ug/L	N	50	1U	10U	1U	0.5U	0.5U	0.5U	1UJ	0.5U	20U	20U	10U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	10U	5U	10U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	10U	1U	1U	1U	1U	2UJ	1U	20U	20U	10U	10UJ	20U	10UJ	10U	5U	5U	10UJ	2U	2UJ	10U	5U	10U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	20U	2U	2U	2U	2U	4UJ	2U	40U	40U	20U	20UJ	40U	20UJ	20U	10U	10U	20UJ	4U	4U	20U	10U	20U
1,2-Dibromoethane	ug/L	N	0	1U	10U	1U	0.5U	0.5U	0.5U	1UJ	0.5U	20U	20U	10U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	10U	5U	10U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	10U	1U	1U	1U	1U	2UJ	1U	20U	20U	10U	10UJ	20U	10UJ	10U	5U	5U	10UJ	2U	2U	10U	5U	10U
1,2-Dichloroethane	ug/L	N	2	1U	10U	1U	0.5U	0.5U	0.5U	1UJ	0.5U	20U	20U	10U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	10U	5U	10U
1,2-Dichloropropane	ug/L	N	1	1U	10U	1U	0.5U	0.5U	0.5U	1UJ	0.5U	20U	20U	10U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	10U	5U	10U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	10U	1U	1U	1U	1U	2UJ	1U	20U	20U	10U	10UJ	20U	10UJ	10U	5U	5U	10UJ	2U	2U	10U	5U	10U
1,4-Dichlorobenzene	ug/L	N	75	1J	10U	1J	1U	1U	1U	2UJ	1U	20U	20U	10U	10UJ	20U	10UJ	10U	5U	5U	10UJ	2U	2U	10U	5U	10U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	30U	3U	3U	3U	3U	6UJ	3U	270	310	30U	88J	130J	38J	30U	18J	16J	30UJ	20	6U	30U	15U	30U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	30U	3U	3U	3U	3U	6UJ	3U	60U	60U	63J	30UJ	60U	30UJ	30U	15U	15U	30UJ	6U	6U	30U	15U	30U
4-Methyl-2-pentanone	ug/L	N	100	3U	30U	3U	3U	3U	3U	6UJ	3U	91J	230	83J	30UJ	60U	30UJ	30U	15U	15U	30UJ	6U	6U	30U	15U	30U
Acetone	ug/L	N	6000	6U	60U	6U	6U	6U	6U	12UJ	6U	470	760	62J	410J	580	140J	60U	30U	30U	60UJ	52	12U	60U	30U	60U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1J	13J	0.6J	9	0.5U	27	1UJ	0.5U	13000	12000	12000	9200J	5500	7100J	6400	9900	9000	8000J-	5200	370	1800	2300	2800
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	10U	1U	0.5U	0.5U	0.5U	1UJ	0.5U	20U	20U	10U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	10U	5U	10U
Bromoform	ug/L	N	4	1U	10U	1U	0.5U	0.5U	0.5U	1UJ	0.5U	20U	20U	10U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	10U	5U	10U
Bromomethane (Methyl bromide)	ug/L	N	10	1UJ	10U	1U	0.5U	0.5U	0.5U	1UJ	0.5U	20U	20U	10U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	10U	5U	10U
Carbon disulfide	ug/L	N	700	1U	10U	1U	1U	1U	1U	2UJ	1U	20U	20U	10U	10UJ	20U	10UJ	10U	5U	5U	10UJ	2U	2U	10U	5U	10U
Carbon Tetrachloride	ug/L	N	1	1U	10U	1U	0.5U	0.5U	0.5U	1UJ	0.5U	20U	20U	10U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	10U	5U	10U
Chlorobenzene	ug/L	N	50	3J	8U	3J	2	0.8J	0.8J	5J	3	16U	16U	8U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	8U	4U	8U
Chloroethane	ug/L	N	5	1U	10U	1U	0.5U	0.5U	0.5U	1UJ	0.5U	20U	20U	10U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	10U	5U	10U
Chloroform	ug/L	N	70	0.8U	8U	0.8U	0.5U	0.5U	0.5U	1UJ	0.5U	16U	16U	8U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	8U	4U	8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	10U	1U	0.5U	0.5U	0.5U	1UJ	0.5U	20U	20U	10U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	10U	5U	10U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	8U	0.8U	0.5U	0.5U	0.5U	1UJ	0.5U	16U	16U	8U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	8U	4U	8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	10U	1U	0.5U	0.5U	0.5U	1UJ	0.5U	20U	20U	10U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	10U	5U	10U
Cyclohexane	ug/L	N	100	10	26UJ	14	7	2J	2U	4UJ	2U	620	480	400	500J	230	190J	130	170	160	190J-	220	180	720	700	600
Dibromochloromethane	ug/L	N	1	1U	10U	1U	0.5U	0.5U	0.5U	1UJ	0.5U	20U	20U	10U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	10U	5U	10U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	20U	2U	0.5U	0.5U	0.5U	1UJ	0.5U	40U	40U	20U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	20U	10U	20U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	8U	0.8U	0.5U	0.5U	0.5U	1UJ	0.5U	4200	3400	2800	3000J	2800	2300J	2500	2900	2700	2400J-	2000	960	2600	3000	2500
Isopropylbenzene	ug/L	N	700	5J	10U	7	3J	10	1U	2UJ	1U	140	120	130	88J	110	94J	86	97	94	89J-	78	36	62	70	66
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	10U	1U	1U	1U	1U	2UJ	1U	20U	20U	10U	10UJ	20U	10UJ	10U	5U	5U	10UJ	2U	2U	10U	5U	10U
Methyl-t-butyl ether	ug/L	N	70	0.5U	5U	0.5U	0.5U	0.5U	0.5U	1UJ	0.5U	10U	10U	5U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	5U	3U	5U
Methylcyclohexane	ug/L	N	100	7J	10U	11	4J	2J	1U	2UJ	1U	560	330	380	360J	270	180J	110	150	150	150J-	170	170	300	250	240
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	20U	2U	2U	2U	2U	1UJ	0.5U	40U	40U	20U	20UJ	40U	20UJ	20U	10U	10U	20UJ	4U	1U	20U	10U	20U
Styrene	ug/L	N	100	1U	10U	1U	1U	1U	1U	2UJ	1U	20U	20U	10U	10UJ	20U	10UJ	10U	5U	5U	10UJ	2U	2U	10U	5U	10U
Tetrachloroethene	ug/L	N	1	0.8U	8U	0.8U	0.5U	0.5U	0.5U	1UJ	0.5U	16U	16U	8U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	8U	4U	8U
Toluene	ug/L	N	600	0.7U	7U	0.7U	0.5U	0.5U	0.5U	1UJ	0.5U	16000	14000	13000	8300J	8700	9400J	9000	8600	7700	8300J-	5700	990	5100	5700	5900
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	8U	0.8U	0.5U	0.5U	0.5U	1UJ	0.5U	16U	16U	8U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	8U	4U	8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	10U	1U	0.5U	0.5U	0.5U	1UJ	0.5U	20U	20U	10U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	10U	5U	10U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	10U	1U	0.5U	0.5U	0.5U	1UJ	0.5U	20U	20U	10U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	10U	5U	10U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	20U	2U	0.5U	0.5U	0.5U	1UJ	0.5U	40U	40U	20U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	20U	10U	20U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	10U	1U	0.5U	0.5U	0.5U	1UJ	0.5U	20U	20U	10U	5UJ	10U	5UJ	5U	3U	3U	5UJ	1U	1U	10U	5U	10U
Xylene (total)	ug/L	N	1000	0.8U	8U	0.8U	0.5U	0.5U	0.5U	1UJ	0.5U	18000	15000	18000	14000J	15000	16000J	14000	13000	12000	13000J-	9800	5500	12000	12000	12000
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	24J	21J	-	-	-	-	-	-	-	-	-	-	-	24000	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	150	-	170	-	-	-	-	-	180000	-	-	-	-	-	-	-	-	-	64000	-	46000	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-331	MW-331	MW-331	MW-331	MW-331	MW-331	MW-331	MW-331	MW-331	MW-332	MW-332	MW-332	MW-332	MW-332	MW-332	MW-332	MW-332	MW-332	MW-332	MW-332	MW-332	MW-340	MW-340	MW-340
			Sample Date	08/21/2014	09/18/2014	10/27/2014	03/12/2015	04/15/2015	07/08/2015	10/22/2015	10/25/2017	01/16/2018	01/07/2013	05/15/2013	01/15/2014	01/15/2014	08/20/2014	09/17/2014	10/21/2014	01/20/2015	04/13/2015	07/09/2015	10/19/2015	10/25/2017	04/29/2013	06/25/2013	07/03/2014
			Field Sample ID	M331A4X	M331A5X	M331A6X	M331A7X	M331A8X	M331A9X	M331B1X	M331B7X	M331B8X	M332A1X	M332A2X	D0115148	M332A3X	M332A4X	M332A5X	M332A6X	M332A7X	M332A8X	M332A9X	M332B1X	M332B6X	M340A1X	M340A2X	M340A3X
			SDG	CP478	CP511	CP583	CP667	CP684	CP773	CP898	CQ841	CQ942	RFX28	RFZ45	CP260	CP260	CP475	CP508	CP552	CP649	CP682	CP774	CP892	CQ841	RFZ20	CP016	CP404
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	0.8U	0.8U	2U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	5U
1,1,1-Trichloroethane	ug/L	N	30	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	0.8U	0.8U	2U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	1U	1U	3U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U
1,1,2-Trichloroethane	ug/L	N	3	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	0.8U	0.8U	2U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2UJ	4U	4UJ	2U	2U	2UJ	2U	2UJ	2U	2U	2U	5U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U
1,1-Dichloroethane	ug/L	N	50	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	1U	1U	3U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U
1,2,4-Trichlorobenzene	ug/L	N	9	1UJ	2U	2UJ	1U	1U	1UJ	1U	1UJ	1U	1U	1U	3U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2UJ	4U	4UJ	2U	2U	2UJ	2U	2UJ	2U	2U	2U	5U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U
1,2-Dibromoethane	ug/L	N	0	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	1U	1U	3U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1UJ	2U	2UJ	1U	1U	1UJ	1U	1UJ	1U	1U	1U	3U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
1,2-Dichloroethane	ug/L	N	2	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	1U	1U	3U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U
1,2-Dichloropropane	ug/L	N	1	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	1U	1U	3U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1UJ	2U	2UJ	1U	1U	1UJ	1U	1UJ	1U	1U	1U	3U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
1,4-Dichlorobenzene	ug/L	N	75	1UJ	2U	2UJ	1U	1U	1UJ	1U	1UJ	1U	1U	1U	3U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	27J	12J	14J	3U	3U	6J-	3U	3UJ	3U	3J	3U	20J	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	6J	77	200
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3UJ	6U	6UJ	3U	3U	3UJ	3U	3UJ	3U	3U	3U	8UJ	3U	4J	3U	3U	3U	3U	3U	3U	3U	3U	5J	30U
4-Methyl-2-pentanone	ug/L	N	100	3UJ	6U	6UJ	3U	3U	3UJ	3U	3UJ	3U	3U	3U	8UJ	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U
Acetone	ug/L	N	6000	94J	38J	44J	6U	6U	14J-	16J	6UJ	6U	7J	6U	42J	6U	6UJ	6U	6U	6U	6U	6U	6U	6U	18J	56	770
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1000J	970	1000J	4	3	23J-	290	1000J	9	28	32	790J	40J	30J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	730	780	320
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	1U	1U	3U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U
Bromoform	ug/L	N	4	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	1U	1U	3U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5UJ	1U	1UJ	0.5U	0.5UJ	0.5UJ	0.5U	0.5UJ	0.5U	1U	1U	3U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U
Carbon disulfide	ug/L	N	700	1UJ	2U	2UJ	1U	1U	1UJ	1U	1UJ	1U	1U	1U	3U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	46J
Carbon Tetrachloride	ug/L	N	1	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5UJ	1U	1U	3U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U
Chlorobenzene	ug/L	N	50	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	0.8U	0.8U	2U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	5U
Chloroethane	ug/L	N	5	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	1U	1U	3U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U
Chloroform	ug/L	N	70	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	1J	0.8U	2U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	5U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	1U	1U	3U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	0.8U	0.8U	2U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	1U	1U	3U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U
Cyclohexane	ug/L	N	100	260J	270	310J	46	38	51J-	92	250J	25	18	19	520J	17J	5J	2U	2U	2U	2U	2U	2U	2U	80	70	38J
Dibromochloromethane	ug/L	N	1	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	1U	1U	3U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	2U	2U	5U	2U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	740J	580	990J	52	30	50J-	160	250J	42	0.9J	0.9J	1800J	1J	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	400	540	200
Isopropylbenzene	ug/L	N	700	28J	26	29J	3J	3J	4J-	6	5J	2J	1U	1U	99J	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	36	31	14J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1UJ	2U	2UJ	1U	1U	1UJ	1U	1UJ	1U	1U	1U	3U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
Methyl-t-butyl ether	ug/L	N	70	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Methylcyclohexane	ug/L	N	100	150J	120	160J	34	31	37J-	37	110J	11	5	6	360J	3J	2J	1U	1U	1U	1U	1U	1U	1U	89	87	82
Methylene chloride (Dichloromethane)	ug/L	N	3	2UJ	4U	4UJ	2U	2U	2UJ	2U	0.5UJ	0.5U	3J	2U	5U	2U	2UJ	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	20U
Styrene	ug/L	N	100	1UJ	2U	2UJ	1U	1U	1UJ	1U	1UJ	1U	1U	1U	3U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
Tetrachloroethene	ug/L	N	1	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	0.8U	0.8U	2U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	5U
Toluene	ug/L	N	600	2000J	1500	1700J	4	3	21J-	240	780J	13	1J	0.8J	120J	0.7U	2J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	320	340	120
trans-1,2-Dichloroethene	ug/L	N	100	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	0.8U	0.8U	2U	0.8U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	1U	1U	3U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	1U	1U	3U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	2U	2U	5U	2U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5UJ	1U	1UJ	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	1U	1U	3U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U
Xylene (total)	ug/L	N	1000	2200J	2600	3500J	150	88	120J-	400	1600J	120	18	3J	4000J	1J	6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1400	1400	800
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	12000	850	-	-	-	-	-	-	-	-	-	-	-	20U	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	4000	-	-	370	-	-	-	-	-	-	-	-	-	20U	-	10000	8800	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-340	MW-340	MW-340	MW-340	MW-340	MW-341	MW-341	MW-341	MW-341	MW-341	MW-341	MW-341	MW-341	MW-341	MW-341	MW-341	MW-341	MW-342	MW-342	MW-342	MW-342	MW-342
			Sample Date	08/05/2014	01/16/2015	07/16/2015	12/11/2015	05/11/2017	01/21/2013	05/16/2013	01/15/2014	08/22/2014	09/16/2014	09/29/2014	10/24/2014	01/21/2015	04/13/2015	07/08/2015	10/20/2017	01/15/2018	01/22/2013	03/28/2013	01/16/2014	01/16/2014	08/22/2014
			Field Sample ID	M340A4X	M340A5X	M340A6X	M340A7X	M340A8X	M341A1X	M341A2X	M341A3X	M341A4X	M341A5X	M341A6X	M341A7X	M341A8X	M341A9X	M341B1X	M341B8X	M341B9X	M342A1X	M342A2X	D0116148	M342A3X	M342A4X
			SDG	CP466	CP644	CP783	CP962	CQ637	RFX38	RFZ51	CP260	CP481	CP507	CP520	CP559	CP651	CP682	CP773	CQ831	CQ941	RFX39	RFY42	CP261	CP261	CP481
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	5UJ	0.5U	10U	3UJ	5U	8U	8U	8U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	16U	16U	16U	16U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	5UJ	0.5U	10U	3UJ	5U	8U	8U	8U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	16U	16U	16U	16U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	5UJ	0.5U	10U	3UJ	5U	10U	10U	10U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	20U	20U	20U	20U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	5UJ	0.5U	10U	3UJ	5U	8U	8U	8U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	16U	16U	16U	16U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	20UJ	2U	40U	10UJ	20U	20U	20U	20U	4U	2U	4U	2UJ	2U	2U	2UJ	10U	10U	40U	40U	40U	40U	2U
1,1-Dichloroethane	ug/L	N	50	5UJ	0.5U	10U	3UJ	5U	10U	10U	10U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	20U	20U	20U	20U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	10UJ	1U	20U	5UJ	10U	10U	10U	10U	2U	1U	2U	1UJ	1U	1U	1UJ	5U	5U	20U	20U	20U	20U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	20UJ	2U	40U	10UJ	20U	20U	20U	20U	4U	2U	4U	2UJ	2U	2U	2UJ	10U	10U	40U	40U	40U	40U	2U
1,2-Dibromoethane	ug/L	N	0	5UJ	0.5U	10U	3UJ	5U	10U	10U	10U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	20U	20U	20U	20U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	10UJ	1U	20U	5UJ	10U	10U	10U	10U	2U	1U	2U	1UJ	1U	1U	1UJ	5U	5U	20U	20U	20U	20U	1U
1,2-Dichloroethane	ug/L	N	2	5UJ	0.5U	10U	3UJ	5U	10U	30J	10U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	20U	20U	20U	20U	0.5U
1,2-Dichloropropane	ug/L	N	1	5UJ	0.5U	10U	3UJ	5U	10U	10U	10U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	20U	20U	20U	20U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	10UJ	1U	20U	5UJ	10U	10U	10U	10U	2U	1U	2U	1UJ	1U	1U	1UJ	5U	5U	20U	20U	20U	20U	1U
1,4-Dichlorobenzene	ug/L	N	75	10UJ	1U	20U	5UJ	10U	10U	10U	10U	2U	1U	2U	1UJ	1U	1U	1UJ	5U	5U	20U	20U	20U	20U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	200J	19	60U	15UJ	30U	30U	71J	30U	64	32	46	45J	3U	3U	4J-	15U	36J	60U	60U	60U	60U	29
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	36J	3U	60U	15UJ	30U	30U	160	55J	11J	5J	6J	3UJ	3U	3U	3UJ	15U	15U	60U	60U	60U	60U	10UJ
4-Methyl-2-pentanone	ug/L	N	100	36J	3U	60U	15UJ	30U	30U	99J	30U	6U	3J	6U	5J	14	7J	3J-	15U	15U	60U	60U	60U	60U	5UJ
Acetone	ug/L	N	6000	720J	71	120U	42J	60U	60U	260	63J	120	78	92	200J	6U	6U	6UJ	32J	120	120U	120U	120U	120U	79
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	210J	640	660	500J	380	3800	14000	13000	1600	1700	1400	92J	11	2	12J-	320	470	7800	13000	17000	16000	1200
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	5UJ	0.5U	10U	3UJ	5U	10U	10U	10U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	20U	20U	20U	20U	0.5U
Bromoform	ug/L	N	4	5UJ	0.5U	10U	3UJ	5U	10U	10U	10U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	20U	20U	20U	20U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	5UJ	0.5U	10U	3UJ	5U	10U	10U	10U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	20U	20U	20U	20U	0.5U
Carbon disulfide	ug/L	N	700	36J	1U	20U	5UJ	10U	10U	10U	10U	2U	1U	2U	1UJ	1U	1U	1J-	5U	5U	20U	20U	20U	20U	1U
Carbon Tetrachloride	ug/L	N	1	5UJ	0.5U	10U	3UJ	5U	10U	10U	10U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	20U	20U	20U	20U	0.5U
Chlorobenzene	ug/L	N	50	5UJ	0.5U	10U	3UJ	5U	8U	8U	8U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	16U	16U	16U	16U	0.5U
Chloroethane	ug/L	N	5	5UJ	0.5U	10U	3UJ	5U	10U	10U	10U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	20U	20U	20U	20U	0.5U
Chloroform	ug/L	N	70	5UJ	0.5U	10U	3UJ	5U	18J	8U	8U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	16U	16U	16U	16U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	5UJ	0.5U	10U	3UJ	5U	10U	10U	10U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	20U	20U	20U	20U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	5UJ	0.5U	10U	3UJ	5U	8U	8U	8U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	16U	16U	16U	16U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	5UJ	0.5U	10U	3UJ	5U	10U	10U	10U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	20U	20U	20U	20U	0.5U
Cyclohexane	ug/L	N	100	31UJ	78	40U	46J	34J	370	420	630	7J	2U	4U	2J	2J	2J	5J-	76	88	550	820	720	630	27
Dibromochloromethane	ug/L	N	1	5UJ	0.5UJ	10U	3UJ	5U	10U	10U	10U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	20U	20U	20U	20U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	5UJ	0.5U	10U	3UJ	5U	20U	20U	20U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	40U	40U	40U	40U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	150J	410	340	310J	180	1100	2800	2400	860	230	340	37J	8	5	6J-	1100	1400	2600	2500	2900	2900	550
Isopropylbenzene	ug/L	N	700	12J	25	20U	16J	16J	51	110	78	61	7	9J	1J	1U	1U	1UJ	79	92	89J	68J	76J	68J	37
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	10UJ	1U	20U	5UJ	10U	10U	10U	10U	2U	1U	2U	1UJ	1U	1U	1UJ	5U	5U	20U	20U	20U	20U	1U
Methyl-t-butyl ether	ug/L	N	70	5UJ	0.5U	10U	3UJ	5U	5U	5U	5U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	10U	10U	10U	10U	0.5U
Methylcyclohexane	ug/L	N	100	75J	110	37J	56J	46J	230	230	280	6J	1J	2J	1J	1U	1U	1UJ	53	63	390	450	410	320	20
Methylene chloride (Dichloromethane)	ug/L	N	3	20UJ	2U	40U	10UJ	20U	20U	20U	20U	4U	2U	4U	2UJ	2U	2U	2UJ	3U	3U	40U	40U	40U	40U	2U
Styrene	ug/L	N	100	10UJ	1U	20U	5UJ	10U	10U	10U	10U	2U	1U	2U	1UJ	1U	1U	1UJ	5U	5U	20U	20U	20U	20U	1U
Tetrachloroethene	ug/L	N	1	5UJ	0.5U	10U	3UJ	5U	8U	8U	8U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	16U	16U	16U	16U	0.5U
Toluene	ug/L	N	600	70J	160	85	79J	56	4500	12000	11000	510	1200	1300	64J	0.9J	0.5U	0.5UJ	1000	1800	16000	17000	19000	20000	1400
trans-1,2-Dichloroethene	ug/L	N	100	5UJ	0.5U	10U	3UJ	5U	8U	8U	8U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	16U	16U	16U	16U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	5UJ	0.5U	10U	3UJ	5U	10U	10U	10U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	20U	20U	20U	20U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	5UJ	0.5U	10U	3UJ	5U	10U	10U	10U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	20U	20U	20U	20U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	5UJ	0.5U	10U	3UJ	5U	20U	20U	20U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	40U	40U	40U	40U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	5UJ	0.5U	10U	3UJ	5U	10U	10U	10U	1U	0.5U	1U	0.5UJ	0.5U	0.5U	0.5UJ	3U	3U	20U	20U	20U	20U	0.5U
Xylene (total)	ug/L	N	1000	580J	1300	500	550J	140	5600	15000	13000	3800	1200	1700	200J	13	4	1J-	6900	8400	12000	11000	12000	12000	2900
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	7100J	-	-	-	-	-	-	-	-	-	-	-	38000	66000	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	7100J	11000	-	-	-	42000	96000	-	-	-	-	1300J	-	-	-	-	-	100000	110000	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-342	MW-342	MW-342	MW-342	MW-342	MW-342	MW-342	MW-342	MW-342	MW-343	MW-343	MW-343	MW-343	MW-343	MW-343	MW-343	MW-343	MW-343	MW-343	MW-343	MW-343	MW-347	MW-347
			Sample Date	09/16/2014	09/29/2014	10/24/2014	01/21/2015	05/07/2015	07/08/2015	10/21/2015	10/26/2017	01/18/2018	01/16/2013	01/16/2013	05/15/2013	01/15/2014	08/22/2014	09/16/2014	09/29/2014	10/24/2014	01/29/2015	04/13/2015	07/08/2015	10/20/2017	04/23/2013	04/23/2013
			Field Sample ID	M342A5X	M342A6X	M342A7X	M342A8X	M342A9X	M342B1X	M342B2X	M342B8X	M342B9X	D0116137	M343A1X	M343A2X	M343A3X	M343RA4X	M343A5X	M343A6X	M343A7X	M343A8X	M343A9X	M343B1X	M343B8X	D0423138	M347A1X
			SDG	CP507	CP520	CP559	CP651	CP706	CP773	CP897	CQ846	CQ944	RFX34	RFX34	RFZ45	CP260	CP481	CP507	CP520	CP559	CP658	CP682	CP773	CQ831	RFZ03	RFZ03
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	20U	8U	16U	8U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	20U	8U	16U	8U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	25U	10U	20U	10U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	7	3U	20U	8U	16U	8U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	10U	4U	2UJ	2U	2U	2UJ	2U	4U	10U	50U	20U	40U	20U	4U	5U	2U	2UJ	2U	2U	2UJ	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	25U	10U	20U	10U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	5U	2U	1UJ	1U	1U	1UJ	1U	2U	5U	25U	10U	20U	10U	2U	3U	1U	1UJ	1U	1U	1UJ	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	10U	4U	2UJ	2U	2U	2UJ	2U	4U	10U	50U	20U	40U	20U	4U	5U	2U	2UJ	2U	2U	2UJ	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	25U	10U	20U	10U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	5U	2U	1UJ	1U	1U	1UJ	1U	2U	5U	25U	10U	20U	10U	2U	3U	1U	1UJ	1U	1U	1UJ	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	25U	10U	20U	10U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U
1,2-Dichloropropane	ug/L	N	1	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	25U	10U	20U	10U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	5U	2U	1UJ	1U	1U	1UJ	1U	2U	5U	25U	10U	20U	10U	2U	3U	1U	1UJ	1U	1U	1UJ	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	5U	2U	1UJ	1U	1U	1UJ	1U	2U	5U	25U	10U	20U	10U	2U	3U	1U	1UJ	1U	1U	1UJ	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	15U	12J	10J	3J	3U	3J-	14	6U	19J	75U	51J	60U	30U	22	8U	7J	5J	4J	3U	4J	3U	11	12
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	15U	6U	3UJ	3U	3U	3UJ	5J	19J	24J	75U	30U	60U	30U	6U	8U	3U	3UJ	3U	3U	3UJ	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	15U	6U	3UJ	3U	9J	4J-	12	6U	15U	75U	30U	60U	68J	6U	8U	3U	3UJ	3U	3U	3UJ	3U	3U	3U
Acetone	ug/L	N	6000	60J	56	53J	6U	6U	10J-	17J	12U	45J	150U	140J	190J	60U	63	21J	33	26J	10J	6U	13J	6U	20	23
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	580	280	950J	280	280	140J-	440	710	1200	11000	12000	12000	14000	300	110	200	310J	260	210	33J-	45	130	150
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	25U	10U	20U	10U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U
Bromoform	ug/L	N	4	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	25U	10U	20U	10U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	25U	10U	20U	10U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U
Carbon disulfide	ug/L	N	700	5U	2U	1UJ	1U	1U	1UJ	1U	2U	5U	25U	10U	20U	10U	2U	3U	1U	1UJ	1U	1U	1UJ	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3UJ	25U	10U	20U	10U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U
Chlorobenzene	ug/L	N	50	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	20U	8U	16U	8U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U
Chloroethane	ug/L	N	5	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	25U	10U	20U	10U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U
Chloroform	ug/L	N	70	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	20U	8U	16U	8U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	25U	10U	20U	10U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	20U	8U	16U	8U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	25U	10U	20U	10U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U
Cyclohexane	ug/L	N	100	68	15	44J	78	63	59J-	88	170	260	580	720	690	570	10J	12J	18	54J	110	66	64J-	19	150	140
Dibromochloromethane	ug/L	N	1	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	25U	10U	20U	10U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	50U	20U	40U	20U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	1100	510	290J	280	210	92J-	290	1300	1600	2500	3000	2900	2400	600	160	320	200J	70	65	51J-	52	7	8
Isopropylbenzene	ug/L	N	700	62	40	19J	20	15	9J-	11	74	79	78J	130	100	91	53	12J	29	26J	12	8	8J-	2J	21	22
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	5U	2U	1UJ	1U	1U	1UJ	1U	2U	5U	25U	10U	20U	10U	2U	3U	1U	1UJ	1U	1U	1UJ	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	13U	5U	10U	5U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	96	14	43J	83	49	52J-	76	170	230	260	360	440	250	7J	10J	16	50J	44	38	47J-	5J	130	120
Methylene chloride (Dichloromethane)	ug/L	N	3	10U	4U	2UJ	2U	2U	2UJ	2U	11	3U	50U	20U	40U	20U	4U	5U	2U	2UJ	2U	2U	2UJ	0.5U	2U	2U
Styrene	ug/L	N	100	5U	2U	1UJ	1U	1U	1UJ	1U	2U	5U	25U	10U	20U	10U	2U	3U	1U	1UJ	1U	1U	1UJ	1U	1U	1U
Tetrachloroethene	ug/L	N	1	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	20U	8U	16U	8U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U
Toluene	ug/L	N	600	2500	560	610J	40	10	41J-	710	1800	3600	13000	13000	12000	12000	220	90	41	49J	30	6	3J-	9	18	19
trans-1,2-Dichloroethene	ug/L	N	100	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	20U	8U	16U	8U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	25U	10U	20U	10U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	25U	10U	20U	10U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	50U	20U	40U	20U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	3U	1U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	3U	25U	10U	20U	10U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	1U	1U
Xylene (total)	ug/L	N	1000	7300	2600	1700J	820	380	210J-	1300	12000	10000	12000	14000	14000	16000	2500	560	1000	560J	150	66	56J-	86	50	54
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	46000	67000	-	-	-	-	-	-	-	-	-	-	-	800	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	10000J	-	-	-	7100	-	-	120000	120000	95000	-	-	-	-	5100J	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-347	MW-347	MW-347	MW-347	MW-347	MW-348	MW-348	MW-348	MW-348	MW-348	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376
			Sample Date	05/21/2013	10/29/2013	10/29/2013	02/11/2016	09/13/2017	10/30/2013	01/09/2014	01/09/2014	02/16/2018	02/16/2018	01/15/2014	04/17/2014	07/17/2014	07/17/2014	11/19/2014	12/08/2014	04/14/2015	05/15/2015	09/01/2015	10/14/2015	11/03/2015	11/03/2016	03/21/2017	08/25/2017
			Field Sample ID	M347A2X	D1029138	M347A3X	D0211168	M347B5X	M348A1X	D0109148	M348A2X	D0216188	M348B3X	M376A1X	M376A2X	D0717141	M376A3X	M376A5X	M376A4X	M376A6X	M376A7X	M376A8X	M376A9X	M376B1X	M376B3X	M376B4X	M376B5X
			SDG	RFZ58	CP171	CP171	CQ013	CS602	CP173	CP252	CP252	CQ978	CQ978	CS054	CS087	CS126	CS126	CS188	CP620	CS219	CS232	CS281	CP881	CS307	CS479	CS528	CS594
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	20U	2U	2U	2U	2U	2UJ	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	32J	43J	30U	3UJ	3U	3UJ	4J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	30U	3U	3U	3UJ	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U
Acetone	ug/L	N	6000	6J	49J	66J	60U	7J	6U	6U	6J	6U	6U	6U	6J	11J	10J	6U	6U	6U	6U	6U	6U	8J	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	140	180	200	120	35	0.5U	0.5U	0.5U	0.5U	0.5U	24	130	240	220	98	240	220	140	19	220	160	94	250	330
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	1U	1U	1U	5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U
Carbon disulfide	ug/L	N	700	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	1U	1U	1U	5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	210	140J	200J	83	51	3J	5J	5	2U	2U	14	21U	19J	17J	15	45	13	9	2U	10	8	6	54	31
Dibromochloromethane	ug/L	N	1	1U	1U	1U	5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	5U	0.5U	2U	2U	2U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	9	6	7	6J	4	0.8U	0.8U	0.8U	0.5U	0.5U	3J	11	3	3	2	7	5	4	0.5U	4	3	2	11	9
Isopropylbenzene	ug/L	N	700	28	29	32	13J	18	10	9	10	4J	4J	2J	5	3J	2J	2J	6	3J	2J	1U	3J	2J	2J	8	7
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	140	130	150	55	46	59	62	62UJ	1U	1U	4J	9	3J	3J	4J	16	4J	2J	1U	4J	2J	3J	40J	13
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	20U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	21	17	19	8J	2	0.7U	0.7U	0.7U	0.5U	0.5U	5J	17	18	15	11	29	18	10	1	14	10	9	25	36
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	5U	0.5U	2U	2U	2U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	74	53	59	19J	16	0.8U	0.8U	0.8U	0.5U	0.5U	100	210	99	84	97	270	140	94	9	130	87	87	280	370
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	2600J-	2300J	-	-	-	690	660	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	2800	3200	-	-	720	1000	860	-	-	-	-	-	-	-	1800	-	-	-	1100	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379
			Sample Date	01/15/2014	04/17/2014	07/17/2014	09/12/2014	11/19/2014	04/09/2015	05/13/2015	05/15/2015	09/01/2015	10/14/2015	11/03/2015	11/03/2016	03/21/2017	08/25/2017	01/15/2014	04/15/2014	07/11/2014	04/14/2015	06/16/2015	08/27/2015	10/29/2015	11/09/2016	03/22/2017	08/24/2017
			Field Sample ID	M377A1X	M377A2X	M377A3X	M377A4X	M377A5X	M377A6X	M377A8X	M377A7X	M377A9X	M377B1X	M377B2X	M377B4X	M377B5X	M377B6X	M379A1X	M379A2X	M379A3X	M379A4X	M379A5X	M379A6X	M379A7X	M379A9X	M379B1X	M379B2X
			SDG	CS054	CS087	CS126	CP506	CS188	CS217	CP711	CS232	CS281	CP881	CS307	CS479	CS528	CS594	CS054	CS086	CS124	CS219	CS252	CS279	CS305	CS482	CS529	CS593
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	20U	2U	2U	2U	20U	2U	10U	2U	2U	2U	2U	2U	2UJ	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	20U	2U	2U	2U	20U	2U	10U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	30U	3U	3U	3U	30U	4J	15U	3U	3U	3U	3U	3U	5J	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	30U	3U	3U	3U	30U	3U	15U	3U	3U	3U	3UJ	3U	3U	15U	3U	3U	3U	3U	3U	3UJ	3UJ	3U	3U	3UJ
4-Methyl-2-pentanone	ug/L	N	100	30U	3U	3U	3U	30U	3U	15U	3U	3U	3U	3UJ	3U	3U	15U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U
Acetone	ug/L	N	6000	60U	6J	8J	6U	60U	7J	30U	8J	6U	6U	9J	6U	12J	30U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	74	150	170	9	67	330	120	190	15	37	93	5	700	510	0.5U	3	0.5U	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U
Carbon disulfide	ug/L	N	700	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1UJ	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	60	75J	100J	7	36J	110	41	62	2U	15	25	2U	86	55	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	20U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	17J	26	27	2	11	43	14	20	1	5	9	0.5U	44	16	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	36J	45	44	5	26J	54	20J	30	4J	22	27	1J	44	30	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	5U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	40J	66	56	5J	17J	72	20J	35	2J	11	15	1U	33J	17J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	20U	2U	2U	2U	20U	2U	10U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	29J	36	44	5	30	87	31	42	1	14	26	0.6J	120	57	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	20U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	64	100	100	6	50	200	52	82	5	37	66	2	250	140	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	390	-	-	-	-	-	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-381	MW-381	MW-381	MW-381	MW-381	MW-381	MW-381	MW-381	MW-382	MW-382	MW-382	MW-382	MW-382
			Sample Date	01/15/2014	04/15/2014	07/11/2014	04/14/2015	06/10/2015	06/10/2015	08/27/2015	10/29/2015	11/08/2016	03/22/2017	08/30/2017	01/14/2014	04/18/2014	07/15/2014	04/15/2015	06/25/2015	09/03/2015	11/05/2015	12/07/2017	01/14/2014	04/18/2014	07/15/2014	04/15/2015	06/25/2015
			Field Sample ID	M380A1X	M380A2X	M380A3X	M380A4X	D0610151	M380A5X	M380A6X	M380A7X	M380A9X	M380B1X	M380B2X	M381A1X	M381A2X	M381A3X	M381A4X	M381A5X	M381A6X	M381A7X	M381B2X	M382A1X	M382A2X	M382A3X	M382A4X	D0625151
			SDG	CS054	CS086	CS124	CS219	CS250	CS250	CS279	CS305	CS481	CS529	CS596	CS053	CS088	CS125	CS220	CS254	CS282	CS309	CS625	CS053	CS088	CS125	CS220	CS254
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	9J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3UJ	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3UJ	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	22	7J	6U	6U	6U	6U	6U	9J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	7	5	4	3	2	2	0.5U	4	0.5U	4	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	61	38	15	10	2U	2U	2U	2U	2U	15	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	46	35	25	20	13	12	0.5U	8	0.5U	16	0.9J	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	40	29	30	15	18	17	4J	10	1J	18	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	240	200	44	22	37	37	1U	19	9	19	19	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.8J	0.7J	0.7J	0.6J	0.6J	0.6J	0.5U	0.5U	0.5U	0.5J	0.5U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.5U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	6	4	4	4	3	3	1J	4	0.5U	3	1	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-382	MW-382	MW-382	MW-382	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-384	MW-384	MW-384	MW-384	MW-384	MW-384	MW-384	MW-384	MW-384	MW-385	MW-385
			Sample Date	06/25/2015	09/01/2015	11/03/2015	12/07/2017	04/15/2014	07/11/2014	04/09/2015	04/09/2015	06/16/2015	08/27/2015	10/29/2015	11/08/2016	03/22/2017	08/24/2017	01/14/2014	04/18/2014	07/15/2014	06/25/2015	09/01/2015	11/03/2015	11/03/2015	12/07/2017	10/28/2013	01/08/2014
			Field Sample ID	M382A5X	M382A6X	M382A7X	M382B2X	M383A1X	M383A2X	D0409151	M383A3X	M383A4X	M383A5X	M383A6X	M383A8X	M383B9X	M383B1X	M384A1X	M384A2X	M384A3X	M384A4X	M384A5X	D1103151	M384A6X	M384B1X	M385A1X	M385A2X
			SDG	CS254	CS281	CS307	CS625	CS086	CS124	CS217	CS217	CS252	CS279	CS305	CS481	CS529	CS593	CS053	CS088	CS125	CS254	CS281	CS307	CS307	CS625	CP168	CP251
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3UJ	3U	3U	6U	3U	3U	3U	3UJ	3UJ	3U	3U	3UJ	3U	3U	3U	3U	3U	3UJ	3UJ	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3UJ	3U	3U	6U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3UJ	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	16J	11J	10J	9J	7J	6U	6U	22	13J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1300	870	60	51	15	1	0.5U	0.5U	0.5U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.8J	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	1U	1U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7J	0.5U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	4J	4U	3J	3J	2U	2U	2U	2U	2U	2J	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.5U	10	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	19	2U	5	3J	5J	1J	1J	1U	7	8	1U	1U	1U	1U	2J	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	40	49	48	55	6	1U	2J	1U	4J	180	1U	1U	1U	1U	1J	2J	2J	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	0.5U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5U	0.8J	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	14	10	3	3	3	0.5U	0.5U	0.5U	0.5U	0.5J	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24J	24J

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-385	MW-386	MW-386	MW-386	MW-386	MW-386	MW-386	MW-386	MW-386	MW-386R	MW-387	MW-387	MW-387	MW-387	MW-387	MW-387	MW-387	MW-387	MW-387R	MW-388	MW-388	MW-388	MW-388	MW-388
			Sample Date	02/16/2018	11/07/2013	12/20/2013	06/23/2014	03/16/2015	06/29/2015	07/20/2015	10/05/2015	10/29/2015	12/05/2017	11/07/2013	12/19/2013	12/19/2013	07/20/2015	07/20/2015	10/30/2015	10/30/2015	10/30/2015	12/06/2017	11/07/2013	12/19/2013	03/17/2015	06/29/2015	07/20/2015
			Field Sample ID	M385B3X	M386A1X	M386A2X	M386A3X	M386A4	M386A5	M386A6X	M386A7	M386A8X	M386RB7X	M387A1X	D1219138	M387A2X	D0720158	M387A4X	D1030158A	M387A5X	M387A5XA	M387RB4X	M388A1X	M388A2X	M388A3	M388A4	M388A5X
			SDG	CQ978	CP190	CP249	CP379	CP668	CP761	CP786	CP859	CP915	CQ914	CP190	CP246	CP246	CP786	CP786	CP916	CP916	CP916	CQ916	CP190	CP246	CP669	CP761	CP786
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.8U	0.8U	0.5UJ	-	-	5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	3UJ	3UJ	3U	3U	5UJ	0.5U	0.8U	0.8U	-	-	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.8U	0.8U	0.5UJ	-	-	5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	3UJ	3UJ	3U	3U	5UJ	0.5U	0.8U	0.8U	-	-	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	1U	1U	0.5UJ	-	-	5U	-	0.5U	0.5U	1U	1U	1U	3UJ	3UJ	3U	3U	5UJ	0.5U	1U	1U	-	-	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.8U	0.8U	0.5UJ	-	-	5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	3UJ	3UJ	3U	3U	5UJ	0.5U	0.8U	0.8U	-	-	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2UJ	-	-	20U	-	2U	2U	2U	2U	2U	10UJ	10UJ	10U	10U	20UJ	2U	2U	2U	-	-	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	1U	1U	0.5UJ	-	-	5U	-	0.5U	0.5U	1U	1U	1U	3UJ	3UJ	3U	3U	5UJ	0.5U	1U	1U	-	-	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1UJ	-	-	10U	-	1U	1U	1U	1U	1U	5UJ	5UJ	5U	5U	10UJ	1U	1U	1U	-	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2UJ	2U	2U	2UJ	-	-	20U	-	2U	2U	2U	2U	2U	10UJ	10UJ	10U	10U	20UJ	2U	2U	2U	-	-	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	1U	1U	0.5UJ	-	-	5U	-	0.5U	0.5U	1U	1U	1U	3UJ	3UJ	3U	3U	5UJ	0.5U	1U	1U	-	-	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1UJ	-	-	10U	-	1U	3J	1U	1U	1U	5UJ	5UJ	5U	5U	10UJ	1U	1U	1U	-	-	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	1U	1U	0.5UJ	-	-	5U	-	0.5U	0.5U	1U	1U	1U	3UJ	3UJ	3U	3U	5UJ	0.5U	1U	1U	-	-	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	1U	1U	0.5UJ	-	-	5U	-	0.5U	0.5U	1U	1U	1U	3UJ	3UJ	3U	3U	5UJ	0.5U	1U	1U	-	-	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1UJ	-	-	10U	-	1U	1U	1U	1U	1U	5UJ	5UJ	5U	5U	10UJ	1U	1U	1U	-	-	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1UJ	-	-	10U	-	1U	1U	1U	1U	1U	5UJ	5UJ	5U	5U	10UJ	1U	1U	1U	-	-	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	110	3U	3U	3UJ	-	-	30U	-	3U	3U	210	8J	7J	930J	910J	810	870	840J	3U	3U	3U	-	-	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3UJ	-	-	30U	-	3U	3U	7J	3U	3U	35J	43J	25J	27J	30UJ	3U	3U	3U	-	-	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3UJ	-	-	30U	-	3U	3U	4J	3U	3U	23J	23J	15U	15U	30UJ	3U	3U	3U	-	-	3U
Acetone	ug/L	N	6000	57	6U	6U	6UJ	-	-	60U	-	36	6U	94	9J	8J	4200J	3900J	5800	5100	5700J	6U	6U	6U	-	-	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	6	8	0.7J	-	-	10J	-	180	47	670	190	200	340J	360J	74	83	57J	0.5U	0.5U	0.5U	-	-	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	1U	1U	0.5UJ	-	-	5U	-	0.5U	0.5U	1U	1U	1U	3UJ	3UJ	3U	3U	5UJ	0.5U	1U	1U	-	-	0.5U
Bromoform	ug/L	N	4	0.5U	1U	1U	0.5UJ	-	-	5U	-	0.5U	0.5U	1U	1U	1U	3UJ	3UJ	3U	3U	5UJ	0.5U	1U	1U	-	-	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	1U	1U	0.5UJ	-	-	5U	-	0.5U	0.5U	1U	1U	1U	3UJ	3UJ	12	16	6J	0.5U	1U	1U	-	-	0.5U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1UJ	-	-	10U	-	1U	1U	1U	1U	1U	5UJ	5UJ	11J	14J	10UJ	1U	1U	1U	-	-	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	1U	1U	0.5UJ	-	-	5U	-	0.5U	0.5U	1U	1U	1U	3UJ	3UJ	3U	3U	5UJ	0.5U	1U	1U	-	-	0.5U
Chlorobenzene	ug/L	N	50	0.5U	0.8U	0.8U	0.5UJ	-	-	5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	3UJ	3UJ	3U	3U	5UJ	0.5U	0.8U	0.8U	-	-	0.5U
Chloroethane	ug/L	N	5	0.5U	1U	1U	0.5UJ	-	-	5U	-	0.5U	0.5U	1U	1U	1U	3UJ	3UJ	3J	6	5UJ	0.5U	1U	1U	-	-	0.5U
Chloroform	ug/L	N	70	0.5U	0.8U	0.8U	0.5UJ	-	-	5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	3UJ	3J	4J	6	5UJ	0.5U	0.8U	0.8U	-	-	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	1U	1U	0.5UJ	-	-	5U	-	0.5U	0.5U	1U	1U	1U	3UJ	3UJ	220	250	190J	0.5U	1U	1U	-	-	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.8U	0.8U	0.5UJ	-	-	5U	-	0.5U	0.5U	11	2J	3J	6J	6J	3U	3J	5UJ	0.5U	0.8U	0.8U	-	-	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	1U	0.5UJ	-	-	5U	-	0.5U	0.5U	1U	1U	1U	3UJ	3UJ	3U	3U	5UJ	0.5U	1U	1U	-	-	0.5U
Cyclohexane	ug/L	N	100	2U	11	11	9J	-	-	20U	-	29	10	85	46	50	39J	52J	13J	12J	20UJ	2U	6	6	-	-	6
Dibromochloromethane	ug/L	N	1	0.5U	1U	1U	0.5UJ	-	-	5U	-	0.5U	0.5U	1U	1U	1U	3UJ	3UJ	3U	3U	5UJ	0.5U	1U	1U	-	-	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	2U	2U	0.5UJ	-	-	5U	-	0.5U	0.5U	2U	2U	2U	3UJ	3UJ	3U	3U	5UJ	0.5U	2U	2U	-	-	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	1J	0.8U	0.5UJ	-	-	5U	-	11	36	280	68J	89J	120J	140J	35	36	22J	0.5U	0.8U	0.8U	-	-	0.5U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1UJ	-	-	10U	-	1U	1J	20	4J	5	7J	8J	5U	5U	10UJ	1U	2J	4J	-	-	1U
Methane	ug/L	N	NS	-	-	-	-	20000	22000	-	16000J-	-	-	-	-	-	-	-	-	-	-	-	-	-	12000	16000	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1UJ	-	-	10U	-	1U	1U	1U	1U	1U	5UJ	5UJ	5U	5U	10UJ	1U	1U	1U	-	-	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5UJ	-	-	5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	3UJ	3UJ	3U	3U	5UJ	0.5U	0.5U	0.5U	-	-	0.5U
Methylcyclohexane	ug/L	N	100	1U	10	12	6J	-	-	10U	-	11	2J	65	37	40	28J	42J	16J	15J	10UJ	1U	5J	6	-	-	5
Methylene chloride (Dichloromethane)	ug/L	N	3	0.5U	2U	2U	2UJ	-	-	20U	-	2U	0.5U	2U	2U	2U	10UJ	10UJ	10U	10U	20UJ	0.5U	2U	2U	-	-	2U
Styrene	ug/L	N	100	1U	1U	1U	1UJ	-	-	10U	-	1U	1U	1U	1U	1U	5UJ	5UJ	5U	5U	10UJ	1U	1U	1U	-	-	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.8U	0.8U	0.5UJ	-	-	5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	3UJ	3UJ	3U	3U	5UJ	0.5U	0.8U	0.8U	-	-	0.5U
Toluene	ug/L	N	600	0.5U	0.7U	0.7U	0.5UJ	-	-	5U	-	3	18	630	83	79	320J	350J	47	50	44J	0.5U	0.7U	0.7U	-	-	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.8U	0.8U	0.5UJ	-	-	5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	3UJ	3UJ	3U	3U	5UJ	0.5U	0.8U	0.8U	-	-	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	1U	0.5UJ	-	-	5U	-	0.5U	0.5U	1U	1U	1U	3UJ	3UJ	3U	3U	5UJ	0.5U	1U	1U	-	-	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	1U	1U	0.5UJ	-	-	5U	-	0.5U	0.5U	9	3J	4J	4J	5J	3U	3J	5UJ	0.5U	1U	1U	-	-	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	2U	2U	0.5UJ	-	-	5U	-	0.5U	0.5U	2U	2U	2U	3UJ	3UJ	3U	3U	5UJ	0.5U	2U	2U	-	-	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	1U	1U	0.5UJ	-	-	5U	-	0.5U	0.5U	3J	1U	1U	3J	3J	3U	3J	5UJ	0.5U	1U	1U	-	-	0.5U
Xylene (total)	ug/L	N	1000	0.5U	5J	3J	0.9J	-	-	10J	-	37	73	1900	670	660	610J	690J	190	180	120J	0.5U	0.8U	0.9J	-	-	0.9J
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	1100	-	-	-	-	-	-	-	-	20U	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	210	230	-	-	-	-	-	-	-	8900	3900	3900	-	-	-	-	-	-	180	170	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-388	MW-388	MW-388	MW-389	MW-389	MW-389	MW-389	MW-389	MW-389	MW-389	MW-389	MW-400	MW-400	MW-401	MW-401R	MW-401R	MW-401R	MW-401R	MW-404R	MW-404R	MW-404R	MW-404R	MW-409	MW-409R
			Sample Date	10/05/2015	10/29/2015	12/05/2017	11/05/2013	12/20/2013	03/18/2015	06/30/2015	07/20/2015	10/06/2015	10/28/2015	12/07/2017	02/19/2018	02/19/2018	08/24/2015	11/15/2017	11/15/2017	03/05/2018	03/05/2018	04/26/2017	09/05/2017	11/30/2017	03/06/2018	12/03/2014	10/17/2017
			Field Sample ID	M388A6	M388A7X	M388B6X	M389A1X	M389A2X	M389A3	M389A4	M389A5X	M389A6	M389A7X	M389B6X	D0219188	M400A4X	M401A1X	D1115178	M401RA5X	D0305188	M401RA6X	M404RA4X	M404RA5X	M404RA6X	M404RA7X	M409A1X	M409RA8
			SDG	CP859	CP915	CQ914	CP183	CP249	CP669	CP765	CP786	CP860	CP907	CQ919	CQ985	CQ985	CP819	CQ889	CQ889	CQ992	CQ992	CQ608	CQ755	CQ910	CQ994	CP611	CQ819
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.5U	0.5U	0.8U	0.8U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	-	0.5U	0.5U	0.8U	0.8U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	0.5U	0.5U	1U	1U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	-	0.5U	0.5U	0.8U	0.8U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	2U	2U	2U	-	-	2U	-	20U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	0.5U	0.5U	1U	1U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	1U	1U	1U	-	-	1U	-	10U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	2U	2U	2U	-	-	2U	-	20U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	0.5U	0.5U	1U	1U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	1U	1U	1U	-	-	1U	-	10U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	0.5U	0.5U	1U	1U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	1	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	-	0.5U	0.5U	1U	1U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	1U	1U	1U	-	-	1U	-	10U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	1U	1U	1U	1U	-	-	1U	-	10U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	3U	3U	3U	-	-	3U	-	30U	3U	3U	8J	30U	3U	3U	3U	3U	3U	6J	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	3U	3U	3U	-	-	3U	-	30U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	3U	3U	3UJ	3U	-	-	3U	-	30U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	12	3U
Acetone	ug/L	N	6000	-	6U	6U	6U	6U	-	-	6U	-	60U	6U	110	140J+	60U	6U	6U	6U	6U	6U	18J	10J	120	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	0.5U	0.5U	-	-	0.5U	-	5U	0.5U	500	480	12000	360	380	250J	350J	280	360	50	25	27	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	0.5U	0.5U	1U	1U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	-	0.5U	0.5U	1U	1U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	-	0.5U	0.5U	1U	1U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Carbon disulfide	ug/L	N	700	-	1U	1U	1U	1U	-	-	1U	-	10U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	-	0.5U	0.5U	1U	1U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5UJ
Chlorobenzene	ug/L	N	50	-	0.5U	0.5U	0.8U	0.8U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	-	0.5U	0.5U	1U	1U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	-	0.5U	0.5U	0.8U	0.8U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	1J	0.5U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	0.5U	0.5U	1U	1U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	-	0.5U	0.5U	0.8U	0.8U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	-	0.5U	0.5U	1U	1U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	-	4J	4J	2J	2J	-	-	2U	-	20U	2U	410	380	30J	9	8	4J	7J	46	42	16	18	110	2U
Dibromochloromethane	ug/L	N	1	-	0.5U	0.5U	1U	1U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	0.5U	0.5U	2U	2U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	-	0.5U	0.5U	0.8U	0.8U	-	-	0.5U	-	5U	0.5U	21	21	240	13	11	6J	11J	58	64	44	30	1J	0.5U
Isopropylbenzene	ug/L	N	700	-	1U	1U	1U	1U	-	-	1U	-	10U	1U	100	100	10U	1U	1U	1U	1U	5	6	5J	4J	2J	1U
Methane	ug/L	N	NS	15000J-	-	-	-	-	21000	20000	-	12000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	1U	1U	1U	-	-	1U	-	10U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	0.5U	0.5U	0.5U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	3J	3J	2J	2J	-	-	1J	-	10U	1U	180	180	24J	9	7	4J	8J	28	27	9	9	100	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	0.5U	2U	2U	-	-	2U	-	20U	0.5U	0.5U	0.5U	20U	0.5U	0.5U	0.5U	0.5U	2U	2U	0.5U	0.5U	2U	0.5U
Styrene	ug/L	N	100	-	1U	1U	1U	1U	-	-	1U	-	10U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	-	0.5U	0.5U	0.8U	0.8U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	-	0.5U	0.5U	0.7U	0.7U	-	-	0.5U	-	5U	0.5U	5	5	96	28	26	0.5U	0.5U	12	8	3	2	2	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	-	0.5U	0.5U	0.8U	0.8U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	-	0.5U	0.5U	1U	1U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	0.5U	0.5U	1U	1U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	0.5U	0.5U	2U	2U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	0.5U	0.5U	1U	1U	-	-	0.5U	-	5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	-	0.5J	0.6J	0.8U	0.8U	-	-	0.5U	-	5U	0.5U	33	33	790	180	170	0.6J	0.5U	120	57	30	24	4	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	170	-	-	-	-	-	-	-	25J	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	63	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2500	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-409R	MW-409R	MW-410	MW-411	MW-412	MW-413	MW-434R	MW-434R	MW-434R	MW-434R	MW-434R	MW-435R	MW-435R	MW-435R	MW-435R	MW-435R	MW-435R	MW-441R	MW-441R	MW-441R	MW-441R	MW-441R	MW-441R	MW-443
			Sample Date	01/22/2018	02/20/2018	08/19/2014	08/18/2014	08/18/2014	08/18/2014	05/17/2017	08/21/2017	10/31/2017	02/05/2018	05/02/2018	05/01/2017	08/23/2017	10/31/2017	02/06/2018	02/06/2018	05/02/2018	06/09/2017	08/22/2017	10/30/2017	02/07/2018	05/03/2018	05/03/2018	10/17/2017
			Field Sample ID	M409RA9X	M409RB1X	M410A1X	M411A1X	M412A1X	M413A1X	M434RA4X	M434RA5X	M434RA6X	M434RA7X	M434RA8X	M435RA3X	M435RA4X	M435RA5X	D0206188	M435RA6X	M435RA7X	M441RA3X	M441RA4X	M441RA5X	M441RA6X	D0503188	M441RA7X	D1017178
			SDG	CQ946	CQ986	CP472	CP477	CP477	CP477	CQ641	CQ742	CQ855	CQ964	CR046	CQ615	CQ744	CQ855	CQ965	CQ965	CR046	CQ617	CQ743	CQ854	CQ968	CR049	CR049	CQ819
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	-	-	-	-	-	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	-	-	-	-	1U	1U	1UJ	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	-	-	-	-	-	9	2	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	7	6	3	3	1	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	-	-	-	-	-	2	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2	2	0.5U	1J	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	-	-	-	-	46	17	15	22	19	9J	3J	3U	3U	3U	3U	160	51	7J	7J	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	5J	9J	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	5J	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	-	-	-	-	-	740	210	400	380	310	130	12J	64	6U	6U	14J	1100	580	71	18J	61	60	13J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	-	-	-	-	8	3	2	3	8	0.8J	1	0.5U	0.5U	0.5U	0.5U	15	28	25	14	11	11	15J
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	0.5U	-	-	-	-	-	0.5U	0.6J	0.5J	2J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	-	-	-	-	-	120	120	74	54	33	3	0.5U	0.6J	0.5U	0.5U	0.5U	120	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Carbon disulfide	ug/L	N	700	1U	-	-	-	-	-	37	15	12	8	17	4J	6	1J	1U	1U	1U	57	21	1J	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ
Chlorobenzene	ug/L	N	50	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	0.5U	-	-	-	-	-	13	5	13	7	7	0.7J	0.9J	0.5U	0.5U	0.5U	0.5U	37	21	9	4	4	4	0.5U
Chloroform	ug/L	N	70	0.5U	-	-	-	-	-	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5	3	2	1	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	-	-	-	-	-	300	280	460	320	310	13	14	4	0.5U	0.5U	0.9J	1700	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	-	-	-	-	-	10	5	7	6	8	6	59	2U	2U	2U	2U	32	30	66	38	28	28	41J
Dibromochloromethane	ug/L	N	1	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	-	-	-	-	-	0.9J	0.5U	0.5U	0.5U	3	3	2	0.5U	0.5U	0.5U	0.5U	6	48	62	22	32	33	5J
Isopropylbenzene	ug/L	N	700	1U	-	-	-	-	-	1U	1U	1U	1U	1J	1J	2J	1U	1U	1U	1U	2J	14	20	7	8	8	27J
Methane	ug/L	N	NS	-	-	10000	1400	7400	9000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	-	-	-	-	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.9J	1	2	0.9J	0.5U	0.5U	1
Methylcyclohexane	ug/L	N	100	1U	-	-	-	-	-	9	6	8	7	9	8	110	1U	1U	1U	1U	30	30	67	35	27	27	16J
Methylene chloride (Dichloromethane)	ug/L	N	3	0.5U	-	-	-	-	-	15	3J	4	2	2	2U	2U	0.5U	0.5U	0.5U	0.5U	6	10	4	3	2	2	0.5U
Styrene	ug/L	N	100	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	0.6J	0.5U	0.5U	0.5U	11J
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7J	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	18	10	4	5	5	8J
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	20U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-443	MW-443	MW-443	MW-444	MW-446R	MW-446R	MW-446R	MW-447	MW-447	MW-448	MW-449	MW-450	MW-451	MW-451	MW-452	MW-452	MW-452	MW-453	MW-455	MW-458	MW-458	MW-458	MW-464	MW-464
			Sample Date	10/17/2017	01/22/2018	02/19/2018	02/20/2018	10/17/2017	01/23/2018	01/23/2018	02/21/2018	02/21/2018	01/19/2018	01/30/2018	01/19/2018	01/18/2018	01/18/2018	09/08/2017	09/08/2017	01/19/2018	01/19/2018	01/19/2018	10/20/2017	10/20/2017	01/10/2018	10/17/2017	01/22/2018
			Field Sample ID	M443A7	M443A8X	M443A9X	M444A2X	M446RA8	D0123188	M446RA9X	D0221188	M447A2X	M448A4X	M449A5X	M450A4X	D0118188	M451A4X	D0908178A	M452A4X	M452A5X	M453A4X	M455A5X	D1020178X	M458A9X	M458B1X	M464A7	M464A8X
			SDG	CQ819	CQ946	CQ981	CQ986	CQ819	CQ948	CQ948	CQ990	CQ990	CQ945	CQ957	CQ945	CQ944	CQ944	CQ761	CQ761	CQ945	CQ945	CQ945	CQ831	CQ831	CQ936	CQ819	CQ946
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	-	4U	2U	2U	2U	2U	2U	4U	20UJ	2U	2U	2U	100UJ	100UJ	40UJ	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	-	2U	1U	1U	1U	1U	1U	2U	10UJ	1U	1U	1U	50UJ	50UJ	20UJ	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	-	4U	2U	2U	2U	2U	2U	4U	20UJ	2U	2U	2U	100UJ	100UJ	40UJ	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	-	2U	1U	1U	1U	1U	1U	2U	10UJ	1U	1U	1U	50UJ	50UJ	20UJ	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	-	2U	1U	1U	1U	1U	1U	2U	10UJ	1U	1U	1U	50UJ	50UJ	20UJ	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	-	2U	1U	1U	1U	1U	1U	2U	10UJ	1U	1U	1U	50UJ	50UJ	20UJ	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	4J	3U	-	8J	3U	3U	3U	28	23	6U	840J	3U	10J	9J	150UJ	150UJ	1700J	3U	5J	3U	3U	3U	9J	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	-	6U	3U	3U	3U	18	13	6U	310J	3U	3U	3U	150UJ	150UJ	200J	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	-	6U	3U	3U	3U	10	7J	6U	110J	3U	3U	3U	150UJ	150UJ	140J	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	13J	6U	-	24J	6U	6UJ	6UJ	57	51	12U	3900J	290	6U	6U	300UJ	300UJ	7500J	7J	10J	6U	6U	6U	14J	7J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	10J	7	-	35	0.5U	0.5U	0.5U	70	51	1U	120J	0.5U	2	2	25UJ	25UJ	23J	0.8J	6	0.5U	0.5U	0.5U	19	9
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	32J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Carbon disulfide	ug/L	N	700	1U	1U	-	2U	1U	1U	1U	1U	1U	2U	10UJ	1U	1U	1U	50UJ	50UJ	20UJ	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	0.5UJ	0.5U	-	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5UJ	0.5UJ	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	13J	0.5U	0.5U	0.5U	25UJ	25UJ	25J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	100J	0.5U	0.5U	0.5U	25UJ	25UJ	450J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	28J	59	-	53	3J	2U	2U	160	120	4J	59J	2U	22	22	100UJ	100UJ	40UJ	2U	150	2U	2U	2U	29	20
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	3J	3	-	31	0.5U	0.5U	0.5U	14	7	1U	35J	0.5U	2	2	25UJ	25UJ	76J	0.6J	11	0.5U	0.5U	0.5U	4	2
Isopropylbenzene	ug/L	N	700	19J	29	-	49	1U	1U	1U	52	28	2U	10UJ	1U	12	12	50UJ	50UJ	20UJ	1U	24	1U	1U	1U	8	6
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	-	2U	1U	1U	1U	1U	1U	2U	10UJ	1U	1U	1U	50UJ	50UJ	20UJ	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	1	1	-	1J	0.5U	0.6J	0.6J	0.9J	0.7J	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	11J	12	-	50	2J	1U	1U	110	83	2U	24J	1U	59	57	50UJ	50UJ	20UJ	1U	160	1U	1U	1U	35	21
Methylene chloride (Dichloromethane)	ug/L	N	3	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	100UJ	100UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Styrene	ug/L	N	100	1U	1U	-	2U	1U	1U	1U	1U	1U	2U	10UJ	1U	1U	1U	50UJ	50UJ	20UJ	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	8J	11	-	15	0.5U	0.5U	0.5U	15	9	1U	31J	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	1	0.5U	0.5U	0.5U	4	3
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5UJ	0.5U	0.5U	0.5U	25UJ	25UJ	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	5J	8	-	21	0.5U	0.5U	0.5U	17	10	1U	140J	0.5U	1	1	25UJ	25UJ	67J	0.6J	3	0.5U	0.5U	0.5U	29	10
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	1400J+	3600	-	-	-	3800	3800	-	-	-	-	-	-	-	-	-	-	20U	20U	20U	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-464	MW-465	MW-473	MW-490	MW-491	MW-499	MW-499	MW-499	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
			Sample Date	02/19/2018	02/21/2018	03/06/2018	06/17/2016	06/17/2016	11/27/2017	01/31/2018	01/31/2018	06/29/1995	10/25/2002	02/12/2003	09/02/2003	06/14/2005	11/11/2005	06/13/2006	11/28/2006	06/12/2007	08/12/2008	07/09/2009	06/29/2010	07/26/2011	02/28/2012	04/05/2013
			Field Sample ID	M464A9X	M465A2X	M473A6X	M490A1	M491A1	M499A1X	M499A2X	M499A2X	MW-0005-A	M005A2Y	M005A3Y	M005A4	M005A7X	M005A8X	M005A9X	M005B1X	M005B2X	M005B3X	M005B4X	M005B5X-100629	M005B6X	M005B7X	M005B8X
			SDG	CQ981	CQ990	CQ994	CQ144	CQ144	CQ903	CQ958	CQ959	PROJB506361	RFE35	RFE64	RFE85	947365	967213	993388	1015744	1042260	1105054	1152857	RFS51	RFT46	RFU13	RFY57
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	2U	-	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	2U	-	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	0.5U	0.5U	-	-	0.5U	-	0.5U	10U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	1U	-	-	1U	-	1U	9.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	0.5U	0.5U	-	-	0.5U	-	0.5U	5.0U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	1U	-	-	1U	-	1U	9.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	1U	1U	-	-	1U	-	1U	9.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	3U	-	-	3U	-	3U	100U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	3U	-	-	3U	-	3UJ	-	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	3U	3U	-	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	-	44	6U	-	-	6U	-	6U	-	7J	12J	6J	6U	8J	6U	7J	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	43	0.5U	-	-	0.5U	-	0.5U	5.0U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	0.5U	0.5U	-	-	1	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	1U	1U	-	-	1U	-	1U	10U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	-	0.5U	0.5U	-	-	0.5U	-	0.5U	5.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	-	0.5U	0.5U	-	-	8	-	1	5.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	-	62	2U	-	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	1U	3.5J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	-	34	0.5U	-	-	0.5U	-	0.5U	5.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	19	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	540	6800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	3	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	28	1U	-	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-
Styrene	ug/L	N	100	-	1U	1U	-	-	1U	-	1U	5.0U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
Toluene	ug/L	N	600	-	15	0.5U	-	-	0.5U	-	0.5U	5.0U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	-	110	0.5U	-	-	0.5U	-	0.5U	5.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	3000J+	2600J+	-	-	-	20U	20U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-5	MW-5	MW-5	MW-500	MW-500	MW-500	MW-501	MW-501	MW-501	MW-501	MW-504	MW-504	MW-512	MW-512	MW-517	MW-517	MW-517	MW-518	MW-518	MW-518	MW-519	MW-519	MW-519	MW-521
			Sample Date	05/30/2014	06/15/2016	05/03/2017	11/16/2017	01/30/2018	01/30/2018	11/17/2017	11/17/2017	01/30/2018	01/30/2018	10/18/2017	01/09/2018	03/13/2017	05/05/2017	08/15/2017	11/14/2017	02/14/2018	08/16/2017	11/15/2017	02/16/2018	08/16/2017	11/16/2017	02/21/2018	10/31/2017
			Field Sample ID	M005B9X	M005C1X	M005C2X	M500A1X	M500A2X	M500A2X	D1117178	M501A1X	M501A2	M501A2X	M504A8X	M504A9X	M512A1X	M512A2X	M517A1X	M517A2X	M517A3X	M518A1X	M518A2X	M518A3X	M519A1X	M519A2X	M519A3X	M521A1A
			SDG	CS107	CS416	CS553	CQ893	CQ955	CQ956	CQ895	CQ895	CQ956	CQ955	CQ825	CQ935	CQ555	CQ625	CQ736	CQ886	CQ975	CQ738	CQ888	CQ980	CQ738	CQ891	CQ988	CQ857
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	200	200	130	36	26	41	0.5U	0.5U	0.5U	3U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	2300	1400	1200	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	2U	2U	-	2U	2U	-	2U	4UJ	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	10U
1,1-Dichloroethane	ug/L	N	50	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	40	48	51	110	78	120	0.5U	2	3	3U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	1U	1U	-	1U	1U	-	1U	2UJ	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	2U	2U	-	2U	2U	-	2U	4UJ	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	10U
1,2-Dibromoethane	ug/L	N	0	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	1U	1U	-	1U	1U	-	1U	2UJ	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U
1,2-Dichloroethane	ug/L	N	2	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
1,2-Dichloropropane	ug/L	N	1	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	1U	1U	-	1U	1U	-	1U	2UJ	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	1U	1U	-	1U	1U	-	1U	2UJ	2J	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	3U	3U	-	3U	3U	-	3U	6UJ	3U	4J	10	6U	3U	3U	3U	3U	3U	4J	7J	11	15U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	3U	3U	-	3U	3U	-	3U	6UJ	3U	3U	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U	15U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	3U	3U	-	3U	3U	-	3U	6UJ	3U	3U	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U	15U
Acetone	ug/L	N	6000	-	-	-	49	6U	-	6U	6U	-	6U	12UJ	6U	6U	34	12U	6U	6U	6U	6U	6U	38	80	80	30U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	2	0.5U	-	0.5U	0.5U	-	0.5U	2J	0.8J	12	10	1U	0.5U	0.5U	5	4	4	0.5U	0.9J	0.5U	45
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
Bromoform	ug/L	N	4	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5UJ	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
Carbon disulfide	ug/L	N	700	-	-	-	1U	1U	-	1U	1U	-	1U	2UJ	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	3J	1U	5U
Carbon Tetrachloride	ug/L	N	1	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
Chlorobenzene	ug/L	N	50	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	11J	10	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
Chloroethane	ug/L	N	5	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
Chloroform	ug/L	N	70	-	-	-	0.5U	0.5U	-	1	1	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
Cyclohexane	ug/L	N	100	-	-	-	2U	2U	-	2U	2U	-	2U	4UJ	2J	54	41	4U	2U	2U	2U	2U	2U	2U	2U	2U	10U
Dibromochloromethane	ug/L	N	1	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	2	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	8
Isopropylbenzene	ug/L	N	700	-	-	-	1U	1U	-	1U	1U	-	1U	14J	14	21	19	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	1U	1U	-	1U	1U	-	1U	2UJ	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	26
Methylcyclohexane	ug/L	N	100	-	-	-	1U	1U	-	1U	1U	-	1U	6J	6	100	94	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	2U	2U	4U	0.6J	0.5U	2U	0.5U	0.5U	2U	0.5U	0.5U	3U
Styrene	ug/L	N	100	-	-	-	1U	1U	-	1U	1U	-	1U	2UJ	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U
Tetrachloroethene	ug/L	N	1	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	7	5	4	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	3	2	1U	0.5U	0.5U	43	0.9J	0.5U	0.5U	0.5U	0.5U	3U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	17	16	11	4	2	3	0.5U	0.5U	0.5U	3U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	0.5U	0.5U	0.5U	1U	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	3J	3	12	9	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	13
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	20U	-	20U	20U	20U	20U	-	250	230	1200	950	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-521	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-7
			Sample Date	02/05/2018	10/18/1995	12/18/1995	02/22/1996	04/17/1996	10/09/2002	01/28/2003	10/28/2003	08/16/2004	03/23/2005	08/16/2005	03/23/2006	09/08/2006	03/21/2007	03/13/2008	02/27/2009	03/02/2010	03/29/2011	05/02/2012	07/10/2013	09/30/2014	02/20/2018	10/18/1995
			Field Sample ID	M521A2X	MW-0006A-1	MW-0006-A2	MW-0006-AY	MW-0006-AX	M006A1Y	M006A2Y	M006A4A	M006A5	M006A6	M006A7	M006A8	M006A9	M006B1	M006B2X	M006B3X	M006B4X	M006B5X	M006B6X	M006B7X	M006B8X	M006C2X	MW-0007A-1
			SDG	CQ963	54377	55315	60667	61449	RFE28	RFE61	RFE92	RFF19	RFF44	955618	982888	1004877	1030299	1081558	1134114	RFS32	RFT03	RFU51	RFB33	CS163	CS649	54377
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.5U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.5U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	0.5U	5.00U	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5.00U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	10.00U	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	10.00U
1,2-Dichloroethane	ug/L	N	2	0.5U	2.00U	5U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	2.00U
1,2-Dichloropropane	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	10.00U	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	10.00U
1,4-Dichlorobenzene	ug/L	N	75	1U	10.00U	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	10.00U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	13	10.00U	10U	10U	10U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	10.00U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	10.00U	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	10.00U
Acetone	ug/L	N	6000	34	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3600J	15.00	200	92	150	47	23	9	11	15	2J	10	14	5J	0.8J	6	0.8J	3J	7	6	14	16	1.00U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	5.00U	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5.00U
Carbon Tetrachloride	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	0.5U	4.00U	5U	4U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	4.00U
Chloroethane	ug/L	N	5	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	0.5U	5.00U	5U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	5.00U
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	150	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	860	5.00U	5U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5.00U
Isopropylbenzene	ug/L	N	700	49	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	140	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	48	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	0.5U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	N	100	1U	5.00U	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5.00U
Tetrachloroethene	ug/L	N	1	0.5U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
Toluene	ug/L	N	600	910	5.00U	5U	5U	5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	5.00U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	3600	5.00U	5U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5.00U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-8	MW-8
			Sample Date	12/18/1995	02/22/1996	04/17/1996	10/09/2002	01/27/2003	10/21/2003	09/08/2004	03/23/2005	08/16/2005	03/23/2006	09/12/2006	03/21/2007	04/02/2008	03/25/2009	03/25/2009	03/03/2010	03/31/2011	05/02/2012	07/10/2013	06/19/2014	10/02/2015	02/20/2018	10/10/2002	01/29/2003
			Field Sample ID	MW-0007-A2	MW-0007-AY	MW-0007-AX	M007A1Y	M007A2	M007A3	M007A4	M007A5	M007A6	M007A7	M007A8	M007A9	M007B1X	D0325091	M007B2X	M007B3X	M007B4X	M007B5X	M007B6X	M007B9X	M007C4X	M007D3X	M008A1Y	M008A2Y
			SDG	55315	60667	61449	RFE28	RFE61	RFE90	RFF23	RFF44	955618	982888	1005262	1030299	1084471	1137663	1137663	RFS32	RFT04	RFU51	RFB33	CS114	CS294	CS649	RFE28	RFE61
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U
1,2-Dibromoethane	ug/L	N	0	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
1,2-Dichloroethane	ug/L	N	2	5U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	10U	10U	10U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U
Acetone	ug/L	N	6000	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-	-	-	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	5U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
Bromoform	ug/L	N	4	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
Carbon disulfide	ug/L	N	700	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
Carbon Tetrachloride	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
Chlorobenzene	ug/L	N	50	5U	4U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U
Chloroethane	ug/L	N	5	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
Chloroform	ug/L	N	70	5U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
Cyclohexane	ug/L	N	100	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U
Dibromochloromethane	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	5U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.9J
Methylcyclohexane	ug/L	N	100	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U
Styrene	ug/L	N	100	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
Tetrachloroethene	ug/L	N	1	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U
Toluene	ug/L	N	600	5U	5U	5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U
Xylene (total)	ug/L	N	1000	5U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-9	MW-9	MW-9	MW-9	MW-9
			Sample Date	10/21/2003	09/08/2004	04/07/2005	08/16/2005	09/19/2006	04/03/2007	04/08/2008	09/16/2008	09/16/2008	03/18/2009	09/25/2009	03/02/2010	08/17/2010	03/31/2011	03/31/2011	05/30/2012	07/10/2013	07/10/2013	11/01/2013	10/09/2002	01/30/2003	08/26/2004	03/17/2005	09/01/2005
			Field Sample ID	M008A4A	M008A5	M008A6	M008A7	M008A8	M008A9	M008B1X	D0916082	M008B2X	M008B3X	M008B4X	M008B5X	M008B6X	D0331111	M008B7X	M008B8X	D0710131B	M008B9X	M008C1X	M009A1Y	M009A2X	M009A5	M009A6X	M009A7X
			SDG	RFE90	RFF23	RFF47	955618	1006278	1032144	1085453	1110464	1110464	1136756	1163612	RFS32	RFS64	RFT04	RFT04	RFU77	RFB33	RFB33	CP177	RFE28	RFE62	RFF21	RFF44	957808
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	5J	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	9J	6U	6U	7J	6U	-	-	6U	6U	6U	6U	12J	11J	6U	6U	-	-	-	19J	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	0.5U	0.8J	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20U	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
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Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6
			Sample Date	03/21/2006	09/08/2006	04/11/2007	09/18/2007	03/27/2008	09/11/2008	04/02/2009	10/07/2009	03/31/2010	08/17/2010	02/08/2011	06/20/2013	06/20/2014	10/22/2002	02/24/2003	07/29/2008	11/11/2008	06/03/2009	11/20/2009	04/29/2010	09/21/2010	06/23/2011	11/22/2011	03/28/2012
			Field Sample ID	M009A8X	M009A9X	M009B1X	M009B2X	M009B3X	M009B4X	M009B5X	M009B6X	M009B7X	M009B8X	M009B9X	M009C1X	M009C2X	P006A1Y	P006A2Y	P006A3X	P006A4X	P006A5X	P006A6X	P006A7X	P006A8X	P006B1X	P006B2X	P006B3X
			SDG	982474	1004877	1033234	1056766	1083600	1109693	1138848	1165407	RFS36	RFS64	RFS84	RFB13	CS115	RFE34	RFE65	1102860	1119533	1147599	1172227	RFS40	RFS68	RFT36	RFT88	RFU32
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	-	6U	6U	6U	6U	6U	6U	8J	6U	6U	6U	16J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	8	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P14TP1	P14TP1	P14TP1	P14TP1	P14TP1	P14TP1	P14TP1	P14TP1R	P14TP1R	P15TP1	P15TP1	P15TP1	P15TP1	P15TP1
			Sample Date	08/16/2012	02/27/2013	09/26/2013	03/28/2014	11/12/2014	06/26/2015	03/15/2016	09/01/2016	03/28/2017	09/06/2017	04/04/2008	05/18/2009	09/17/2009	03/17/2010	08/17/2010	04/28/2011	05/10/2012	06/17/2016	06/07/2017	12/14/2011	09/05/2012	06/13/2014	12/19/2014	06/18/2015
			Field Sample ID	P006B4X	P006B5X	P006B6X	P006B8X	P006B9X	P006C1X	P006C2X	P006C3X	P006C4X	P006C5X	P14TP1A1X	P14TP1A2X	P14TP1A3X	P14TP1A4X	P14TP1A5X	P14TP1A6X	P14TP1A7X	P14TP1RB1	P14TP1RB2	P15TP1A1	P15TP1A2	P15TP1A3	P15TP1A4X	P15TP1A5
			SDG	RFV29	RFX80	CS016	CS078	CS184	CS255	CS373	CS448	CS532	CS599	1084984	1145283	1162355	RFS33	RFS64	RFT14	RFU56	CS419	CS568	RFT96	RFV34	CS112	CS193	CS253
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	8U	-	-	-	2U	-	-	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	4U	-	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	8U	-	-	-	2U	-	-	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	4U	-	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	4U	-	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	4U	-	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	20J	-	-	-	3U	-	-	4J	3U	3U	3U	3U	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	12U	-	-	-	3U	-	-	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	12U	-	-	-	10J	-	-	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	52J	-	-	-	26	-	-	14J	17J	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5J	2J	3J	1J	2J	0.7J	2J	16	4	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	4U	-	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.5U	0.5U	0.5U
Chloroethane	ug/L	N	5	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	4U	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.5U	0.5U	0.5U
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	25	-	-	-	20	-	-	11	11	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	8U	-	-	-	2U	-	-	0.5U	0.5U	2U	2U	0.5U	0.5U	0.5U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1J	-	-	0.8U	-	-	3	2	0.8U	0.8U	0.5U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	47	-	-	-	28	-	-	54	55	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	4U	-	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	-	-	-	0.5U	-	-	1	2	0.5U	0.5U	0.5U	0.5J	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	350	240	260	98	220	120	250	180	230	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	8U	-	-	-	2U	-	-	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	4U	-	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5J	5	-	-	2J	-	-	6	5	0.7U	0.7U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	-	-	-	0.8U	-	-	0.5U	0.5U	0.8U	0.8U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	8U	-	-	-	2U	-	-	0.5U	0.5U	2U	2U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	-	-	-	1U	-	-	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	8J	11	-	-	6	-	-	12	15	0.8U	0.8U	0.5U	0.5U	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	P15TP1	P15TP3	P15TP3	P15TP3	P15TP4	P15TP4	P15TP4	P15TP4	P15TP4	P15TP4	P15TP5	P15TP5	P15TP5	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11
			Sample Date	12/08/2017	12/14/2011	06/13/2014	06/18/2015	12/14/2011	09/06/2012	06/13/2014	12/19/2014	06/18/2015	12/08/2017	12/14/2011	06/13/2014	06/18/2015	06/15/2005	11/16/2005	06/27/2006	11/28/2006	05/31/2007	08/01/2008	06/24/2009	06/29/2010	06/03/2011	02/14/2012	04/09/2013
			Field Sample ID	P15TP1A9	P15TP3A1	P15TP3A2	P15TP3A3	P15TP4A1	P15TP4A2	P15TP4A3	P15TP4A4X	P15TP4A4	P15TP4A9	P15TP5A1	P15TP5A2	P15TP5A3	R011A1X	R011A2X	R011A3X	R011A4X	R011A5X	R011A6X	R011A7X	R011A8X-100629	R011A9X	R011B1X	R011B2X
			SDG	CS626	RFT96	CS112	CS253	RFT96	RFV37	CS112	CS193	CS253	CS626	RFT96	CS112	CS253	947574	967750	995245	1015744	1040574	1103488	1150741	RFS51	RFT27	RFU10	RFY63
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.8U	0.5U	0.5U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.8U	0.5U	0.5U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	1U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.8U	0.5U	0.5U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	0.5U	1U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	0.5U	1U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	1U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	0.5U	1U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	15	6J	3U	3U	3U	3U	9J	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	4J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	6U	6J	6U	6U	34	6U	6U	6U	10J	6U	22	6U	11J	14J	11J	8J	6U	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	4J	3	3	7	6	7	5	5	5	9	8	5	0.5J	6	1J	0.5U	0.5U	0.8J	1J	0.9J	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	1U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	0.5U	1U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	1U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	1U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	0.5U	0.8U	0.5U	0.5U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	1U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	0.5U	0.8U	0.5U	0.5U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	1U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.8U	0.5U	0.5U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	2U	6	9	2U	2U	2U	18	2U	2U	9J	22	19	2U	3J	3J	4J	4J	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	0.5U	1U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	2U	0.5U	0.5U	2U	2U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	2U	2U	2U	2U	-	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	1J	0.7J	0.8J	2J	2J	3	3	3	2	4J	3	2	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	47	30	47	65	75	74	68	77	66	81	62	60	1U	1U	1U	1U	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.7J	0.6J	1	0.8J	0.8J	0.8J	21	2	1	0.5U	0.5U	20	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	1U	60	64	51J	280	150	300	230	260J	260	240	270	240J	1J	1J	2J	2J	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.8U	0.5U	0.5U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
Toluene	ug/L	N	600	0.5U	3J	2	2	3J	3J	5	3	3	3J	7	5	4	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.8U	0.5U	0.5U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	1U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	2U	0.5U	0.5U	2U	2U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	2U	2U	2U	2U	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	1U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.5U	6	6	6	11	11	12	10	11	8	22	15	15	3J	4J	4J	4J	4J	6	4J	3J	2J	3J	0.9J
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-11	RW-11	RW-11	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31
			Sample Date	06/03/2014	06/02/2016	05/10/2017	06/07/2005	11/15/2005	06/23/2006	12/08/2006	05/23/2007	08/15/2008	07/16/2009	06/18/2010	07/28/2011	03/28/2012	04/11/2013	12/10/2015	06/02/2016	06/09/2017	06/16/2005	11/18/2005	06/13/2006	12/05/2006	06/15/2007	08/15/2008	06/26/2009
			Field Sample ID	R011B3X	R011B4	R011B5X	R021A3X	R021A4X	R021A5X	R021A6X	R021A7X	R021A8X	R021A9X	R021B1X-100618	R021B2X	R021B3X	R021B4X	R021B6X	R021B7	R021B8	R031A1X	R031A2X	R031A3X	R031A4X	R031A5X	R031A6X	R031A7X
			SDG	CS108	CS409	CS557	RFF58	967531	994921	1017481	1039652	1105739	1153802	RFS47	RFT48	RFU32	RFY73	CS327	CS409	CS570	947746	968194	993388	1016740	1042931	1105739	1151128
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	5J	3U	3U	3U	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-
Acetone	ug/L	N	6000	-	-	-	6U	6U	6U	7J	-	-	-	-	-	-	-	-	-	-	9J	6U	6U	6U	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	4J	9	3J	7	5	4J	2J	2J	3J	2J	5J	0.9J	0.9J	1J	0.6J	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Bromoform	ug/L	N	4	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Chlorobenzene	ug/L	N	50	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-
Chloroethane	ug/L	N	5	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Chloroform	ug/L	N	70	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Cyclohexane	ug/L	N	100	-	-	-	16	68	15	58	-	-	-	-	-	-	-	-	-	-	4J	8	7	10	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	9	13	7	9	11	14	10	6	14	3J	17	2	9	2	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	6	11	6	17	-	-	-	-	-	-	-	-	-	-	2J	9	4J	2J	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	7	26	9	21	-	-	-	-	-	-	-	-	-	-	12	21	28	25	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-
Styrene	ug/L	N	100	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	8	14	10	13	16	33	26	26	46	15	21	5	7	8	1J	0.7U	1J	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Xylene (total)	ug/L	N	1000	2	0.5U	0.5U	140	300	140	330	250	320	280	200	330	120	290	94	130	45	2J	0.8U	3J	3J	2J	3J	2J
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33
			Sample Date	07/01/2010	08/04/2011	02/29/2012	03/19/2013	09/03/2014	12/30/2015	06/01/2016	05/04/2017	06/16/2005	11/18/2005	06/09/2006	12/05/2006	06/15/2007	08/22/2008	06/16/2009	06/04/2010	06/30/2011	02/29/2012	03/19/2013	09/03/2014	12/30/2015	06/02/2016	05/04/2017
			Field Sample ID	R031A8X-100701	R031A9X	R031B1X	R031B2X	R031B3X	R031B4X	R031B5	R031B6	R033A1X	R033A2X	R033A3X	R033A4X	R033A5X	R033A6X	R033A7X	R033A8X-100604	R033A9X	R033B1X	R033B2X	R033B3X	R033B4X	R033B5X	R033B6X
			SDG	RFS51	RFT50	RFU14	RFY13	CS150	CS334	CS408	CS555	947746	968194	993031	1016740	1042931	1106759	1149447	RFS46	RFT38	RFU14	RFY13	CS150	CS334	CS409	CS555
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	2U	4U	2U	2U	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	2U	4U	2U	2U	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	3U	6U	3U	3U	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	3U	6U	3U	3U	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	3U	6U	3U	3U	-	-	-	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	18J	14J	37	21	-	-	-	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.6J	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	1J	1U	0.5U	0.5U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7J
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	1U	2U	1J	1U	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	28	18	14	24	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	2U	4U	2U	2U	-	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	9	7J	15	18	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	0.5U	1U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	44	33	36	59	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	2U	4U	2U	2U	-	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7J	0.7U	0.5U	0.5U	0.5U	0.5U	0.7U	1U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	2U	4U	2U	2U	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	2J	0.8J	2J	2J	0.5J	0.5U	0.5U	0.5U	2J	2U	1J	0.8U	1J	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	0.5U	0.5U	0.5U	0.6J
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35
			Sample Date	06/15/2005	11/18/2005	06/13/2006	06/13/2006	06/15/2007	08/13/2008	06/16/2009	06/04/2010	08/18/2011	02/21/2012	03/19/2013	09/03/2014	12/30/2015	06/01/2016	05/04/2017	06/23/2006	12/07/2006	06/15/2007	08/19/2008	07/09/2009	07/01/2010	06/30/2011	02/21/2012
			Field Sample ID	R034A1X	R034A2X	R034A3X	R034A3X	R034A5X	R034A6X	R034A7X	R034A8X-100604	R034A9X	R034B1X	R034B2X	R034B3X	R034B4X	R034B5	R034B6	R035A1X	R035A2X	R035A3X	R035A4X	R035A5X	R035A6X-100701	R035A7X	R035A8X
			SDG	947574	968194	1016155	993388	1042931	1105279	1149447	RFS46	RFT60	RFU12	RFY13	CS150	CS334	CS408	CS555	994921	1017222	1042931	1106131	1152857	RFS51	RFT38	RFU12
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	4J	7J	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	-	-	-	-	-	-
Acetone	ug/L	N	6000	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-	-	-	20J	33	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	1J	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	210	58	160	79	31	65	6	13
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
Bromoform	ug/L	N	4	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	360	490	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	13	14	14	12	8	9	1J	3J
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	22	52	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.5J	0.5J	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	300	340	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	18	30	26	14	24	19	3J	11
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	190	260	240	240	260	300	54	64
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-35	RW-35	RW-35	RW-35	RW-41	RW-41	RW-41	RW-41	RW-41	RW-41	RW-41	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42
			Sample Date	06/27/2013	09/03/2014	06/16/2016	05/16/2017	08/16/2013	09/11/2014	12/10/2015	12/30/2015	06/01/2016	07/21/2016	05/04/2017	11/04/2002	09/29/2004	06/01/2005	11/16/2005	06/15/2006	12/07/2006	06/12/2007	08/19/2008	06/17/2009	06/15/2010	05/19/2011	02/28/2012	03/21/2013
			Field Sample ID	R035A9X	R035B1X	R035B2	R035B3	R041A1	R041A2X	R041A3X	R041A4X	R041A5	R041A6X	R041A7	RW42A1	RW42A2X	R042A3	R042A4X	R042A5X	R042A6X	R042A7X	R042A8X	R042A9X	R042B1X-100615	R042B2X	R042B3X	R042B4X
			SDG	RFB21	CS150	CS418	CS560	CP076	CS154	CP959	CS334	CS408	CQ191	CS555	LNA05	RFF26	RFF57	967750	993798	1017222	1042260	1106131	1149895	RFS47	RFT23	RFU13	RFY20
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	3U	3U	3U	3U	3U	3U	4J	3U	3U	3U	4J	8J	3U	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	3U	3U	3U	3U	3U	3U	3J	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	-	-	-	-	6U	6U	9J	6U	6U	6U	15J	15J	14J	6U	9J	10J	6U	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	45	49	24	7	0.5U	2	0.5U	0.5U	0.9J	0.7J	0.5U	2J	0.5U	90	200	220	92	3J	17	32	3J	0.5J	8	230
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2J	1U	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	-	-	-	-	3J	2U	4J	3J	6	4J	5J	8	2U	16	12	11	17	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	3J	5	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	7	3J	4J	5J	0.8J	4J	2J	0.8U	0.8U	0.8U	2J
Isopropylbenzene	ug/L	N	700	-	-	-	-	6	8	7	3J	5	6	3J	1U	1U	3J	1J	1J	1J	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	12000	-	-	-	-	-	-	7200	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	29	200	64	60	120	67	93	5J	1U	5J	8	6	9	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-
Styrene	ug/L	N	100	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
Toluene	ug/L	N	600	2J	10	2	2	0.7U	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.9J	0.7U	72	39	29	61	5J	51	22	5	6	15	23
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	12	160	15	6	2J	4	4	3	3	3	2	5	0.8U	250	100	100	170	19	160	80	30	16	49	36
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	900	-	-	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	710	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61
			Sample Date	08/12/2013	09/04/2014	12/04/2015	12/04/2015	06/10/2016	07/29/2016	05/11/2017	10/29/2002	07/24/2003	11/06/2003	08/25/2004	11/29/2004	03/03/2005	08/18/2005	11/17/2005	01/12/2006	07/11/2006	10/24/2006	12/18/2006	02/20/2007	04/11/2007	07/12/2007	10/10/2007
			Field Sample ID	R042B5	R042B6X	D1204158	R042B7X	R042B8X	R042B9X	R042C2X	RW61A1	R061A2	RO61A3	R061A4	R061A5X	R061A6X	R061A7X	R061A8X	R061A9	R061B1	R061B2	R061B3	R061B4	R061B5X	R061B6	R061B7
			SDG	CP068	CS151	CP946	CP946	CS414	CQ207	CS558	LNA05	RFE83	RFE91	RFF21	RFF34	RFF41	956018	967951	974193	996874	1011503	1018856	1026191	1033234	1046717	1060372
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	2U	8U	8U	16U	4U	0.8U	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	2U	8U	8U	16U	4U	0.8U	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	2U	8U	8U	16U	4U	0.8U	-	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	2U	2U	-	2U	-	2U	2U	4U	20U	20U	40U	10U	2U	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	1U	1U	-	1U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	2U	2U	-	2U	-	2U	2U	4U	20U	20U	40U	10U	2U	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	0.5U	0.5U	-	0.5U	-	5J	2J	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	1U	1U	-	1U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	1U	1U	-	1U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	1U	1U	-	1U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	3U	3U	-	3U	-	6J	54	32	30U	30U	60U	15U	24	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	3U	3U	-	3UJ	-	3U	3U	6U	30U	30U	60U	15U	3U	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	3U	3U	-	3UJ	-	3U	3U	6U	30U	30U	60U	15U	3U	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	-	-	6U	6U	-	6U	-	49	190	12U	60U	60U	120U	39J	56	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	38J-	5	0.5U	0.5U	1	0.5U	83	2000	2000	2400	6200	5900	21000	4700	4300	7300	2100	120	140	4400	2200	1300	52
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	1U	1U	-	1U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	-	-	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	2U	8U	8U	16U	4U	0.8U	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	-	-	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	2U	8U	8U	16U	4U	0.8U	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	0.5U	0.5U	-	0.5U	-	1U	4J	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	2U	8U	8U	16U	4U	0.8U	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	18J-	-	2J	2J	-	2U	-	19	38	7J	20U	20U	70J	10U	12	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	0.5U	0.5U	-	0.5U	-	2U	2U	4U	20U	20U	40U	10U	2U	-	-	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	3J-	2	0.5U	0.5U	0.5U	0.5U	0.5U	570	520	460	1200	620	2300	1100	710	890	370	21	72	1200	900	470	24
Isopropylbenzene	ug/L	N	700	1J-	-	1U	1U	-	1U	-	26	25	21	48J	23J	53J	50	33	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	7800J-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	1U	1U	-	1U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	1U	5U	5U	10U	3U	0.5U	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	10J-	-	1U	1U	-	1U	-	12	1U	4J	10U	10U	20U	5U	8	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	2U	2U	-	2U	-	2U	2U	4U	20U	20U	40U	10U	2U	-	-	-	-	-	-	-	-
Styrene	ug/L	N	100	-	-	1U	1U	-	1U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	2U	8U	8U	16U	4U	0.8U	-	-	-	-	-	-	-	-
Toluene	ug/L	N	600	31J-	34	1	2	2	0.5U	2	2900	3100	1800	8200	5800	24000	6500	4700	8300	2700	260	67	12000	7300	3200	210
trans-1,2-Dichloroethene	ug/L	N	100	-	-	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	2U	8U	8U	16U	4U	0.8U	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	0.5U	0.5U	-	0.5U	-	2U	2U	4U	20U	20U	40U	10U	2U	-	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	0.5U	0.5U	-	0.5U	-	1U	1U	2U	10U	10U	20U	5U	1U	-	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	72J-	77	12	15	11	0.5U	4	2900	2300	2000	6900	3200	11000	7600	3900	4300	1600	720	250	7800	6600	7200	320
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	98	120	-	20U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	480J-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81
			Sample Date	01/22/2008	08/28/2008	10/16/2008	01/14/2009	05/08/2009	08/26/2009	11/30/2009	02/09/2010	05/19/2010	10/26/2010	09/29/2011	09/29/2011	05/08/2012	04/30/2013	04/01/2005	09/13/2005	03/30/2006	09/28/2006	04/18/2007	04/02/2008	04/08/2009	03/19/2010	05/12/2011
			Field Sample ID	R061B8	R061B9X	R061C1	R061C2	R061C3	R061C4	R061C5	R061C7	R061C8-100519	R061C9X	D0929111	R061D1X	R061D2X	R061D3X	R081A2X	R081A3X	R081A4X	R081A5X	R081A6X	R081A7X	R081A8X	R081A9X	R081B1X
			SDG	1074539	1107601	1115428	1128343	1144083	1159433	1173202	1182011	GWC89	RFS75	RFT74	RFT74	RFU54	RFZ22	RFF46	959069	983761	1007678	1034314	1084471	1139653	RFS34	RFT21
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	10J	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	210	320	210	140	230	190	1000	490	3000	560	1100	1100	270	210	1J	0.5U	0.5U	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	48	140	78	84	290	150	710	370	2100	570	1400	1400	150	460	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	4J	7	8	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1J	1J	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
Toluene	ug/L	N	600	200	550	520	190	790	310	4000	1900	15000	1200	6200	6200	670	1000	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Xylene (total)	ug/L	N	1000	650	970	760	450	2000	800	4400	2200	14000	3200	8100	8100	910	2900	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-83	RW-83
			Sample Date	07/11/2013	09/25/2014	06/21/2016	09/19/2016	12/19/2016	06/08/2017	04/01/2005	09/13/2005	03/30/2006	09/28/2006	04/18/2007	04/02/2008	04/08/2009	04/01/2010	05/12/2011	06/14/2012	05/31/2013	09/25/2014	06/03/2016	09/21/2016	12/20/2016	06/08/2017	11/06/2003	08/30/2004
			Field Sample ID	R081B2X	R081B3X	R081B5X	R081B6X	R081B7X	R081B8X	R082A2X	R082A3X	R082A4X	R082A5X	R082A6X	R082A7X	R082A8X	R082A9X	R082B1X	R082B2X	R082B3X	R082B4X	R082B5	R082B6X	R082B7X	R082B8	R083A2A	R083A3
			SDG	RFB36	CS161	CS420	CQ315	CQ493	CS569	RFF46	959069	983761	1007678	1034314	1084471	1139653	RFS36	RFT21	RFU83	RFZ73	CS161	CS410	CQ307	CQ494	CS569	RFE92	RFF22
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	0.5U	3UJ	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	0.5U	3UJ	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	0.5U	3UJ	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	2U	10UJ	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	10U	2U	-	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	1U	5UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5U	1U	-	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	2U	10UJ	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	10U	2U	-	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	1U	5UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5U	1U	-	1U	1U
1,2-Dichloroethane	ug/L	N	2	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	1U	5UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5U	1U	-	1U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	1U	5UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5U	1U	-	1U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	3U	15UJ	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	15U	3U	-	3U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	3U	15UJ	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	15U	3U	-	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	3U	15UJ	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	15U	3U	-	3U	3U
Acetone	ug/L	N	6000	-	-	-	6U	30UJ	-	6U	6U	6U	9J	-	-	-	-	-	-	-	-	-	30U	6U	-	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.9J	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	1U	1U
Bromoform	ug/L	N	4	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	1U	1U
Carbon disulfide	ug/L	N	700	-	-	-	1U	5UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5U	1U	-	1U	1U
Carbon Tetrachloride	ug/L	N	1	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	1U	1U
Chlorobenzene	ug/L	N	50	-	-	-	0.5U	3UJ	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	0.8U	0.8U
Chloroethane	ug/L	N	5	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	1U	1U
Chloroform	ug/L	N	70	-	-	-	0.5U	3UJ	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	0.8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	0.5U	3UJ	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	1U	1U
Cyclohexane	ug/L	N	100	-	-	-	2U	10UJ	-	6	4J	4J	3J	-	-	-	-	-	-	-	-	-	10U	2U	-	3J	2U
Dibromochloromethane	ug/L	N	1	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	0.5U	3UJ	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	2U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.5U	0.5U	0.5U	3UJ	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3U	0.5U	0.5U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	2J	5UJ	-	120	73	50	41	-	-	-	-	-	-	-	-	-	34	38	-	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	1U	5UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5U	1U	-	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	0.5U	3UJ	-	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	0.5U	0.6J
Methylcyclohexane	ug/L	N	100	-	-	-	1U	5UJ	-	5	3J	4J	3J	-	-	-	-	-	-	-	-	-	5U	1U	-	1J	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	2U	10UJ	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	10U	2U	-	2U	2U
Styrene	ug/L	N	100	-	-	-	1U	5UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5U	1U	-	1U	1U
Tetrachloroethene	ug/L	N	1	-	-	-	0.5U	3UJ	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.5U	0.5U	0.5U	3UJ	0.5U	0.7U	2J	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7J	0.7J	3U	0.6J	0.5U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	0.5U	3UJ	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	0.5U	3UJ	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	0.5U	3UJ	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	3U	0.5U	-	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.5U	0.5U	1	3UJ	0.5U	1J	2J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5J	2	3U	2	1	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	140	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	180	700	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91
			Sample Date	04/05/2005	09/01/2005	04/04/2006	09/28/2006	04/13/2007	04/02/2008	04/08/2009	03/18/2010	04/07/2011	06/14/2012	05/29/2013	09/25/2014	06/03/2016	09/20/2016	12/20/2016	06/08/2017	11/25/2003	09/10/2004	03/24/2005	09/08/2005	03/28/2006	09/19/2006	04/03/2007	04/08/2008
			Field Sample ID	R083A2X	R083A4X	R083A5X	R083A6X	R083A7X	R083A8X	R083A9X	R083B1X	R083B2X	R083B3X	R083B4X	R083B5X	R083B6X	R083B7X	R083B8X	R083B9X	R091A1A	R091A2X	R091A3X	R091A4X	R091A5X	R091A6X	R091A7X	R091A8X
			SDG	RFF47	957808	984270	1007678	1033684	1084471	1139653	RFS34	RFT05	RFU83	RFZ68	CS161	CS410	CQ304	CQ494	CS569	RFE93	RFF23	RFF46	958509	983381	1006278	1032144	1085453
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	2U	2U	2U	2U	2U	2U	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	1U	1U	1U	1U	1U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	2U	2U	2U	2U	2U	2U	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	1U	1U	1U	1U	1U	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	1U	1U	1U	1U	1U	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	-	3U	3U	3U	3U	3U	3U	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	-	3U	3U	3U	3U	3U	3U	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	-	3U	3U	3U	3U	3U	3U	-	-
Acetone	ug/L	N	6000	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-	6U	6U	-	6U	6U	6U	6U	6U	6U	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	25U	0.5U	10	8	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1J
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	-	-
Bromoform	ug/L	N	4	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	1U	1U	1U	1U	1U	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	-	-
Cyclohexane	ug/L	N	100	2U	2U	4J	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	2J	2U	2U	2U	2U	2U	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	2U	2U	2U	2U	2U	2U	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	40U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	2J	1U	1J	1U	1U	1U	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	1U	1U	1U	1U	1U	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5J	0.5U	0.5U	0.5U	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	2J	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1J	1U	1J	1U	1U	1U	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	2U	2U	2U	2U	2U	2U	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	1U	1U	1U	1U	1U	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	35U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	2U	2U	2U	2U	2U	2U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	40U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	20U	20U	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-91	RW-91	RW-91	RW-91	RW-91	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-93	RW-93	RW-93	RW-93	RW-93
			Sample Date	03/20/2009	03/19/2010	05/12/2011	06/19/2013	11/05/2013	04/01/2005	09/13/2005	03/28/2006	09/28/2006	04/03/2007	04/08/2008	03/20/2009	03/17/2010	05/12/2011	05/30/2012	10/30/2013	01/13/2014	09/30/2014	02/16/2018	04/01/2005	09/13/2005	03/28/2006	09/28/2006	04/03/2007
			Field Sample ID	R091A9X	R091B1X	R091B2X	R091B3X	R091B4X	R092A1X	R092A2X	R092A3X	R092A4X	R092A5X	R092A6X	R092A7X	R092A8X	R092A9X	R092B1X	R092B2X	R092B3X	R092B4X	R092B7	R093A1X	R093A2X	R093A3X	R093A4X	R093A5X
			SDG	1137154	RFS34	RFT21	RFB10	CP184	RFF46	959069	983381	1007678	1032144	1085453	1137154	RFS33	RFT21	RFU77	CP173	CP257	CS163	CS648	RFF46	959069	983381	1007678	1032144
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	4U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	4U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	4U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	2U	2U	2U	2U	2U	-	-	-	-	-	-	10U	2U	-	-	2U	2U	2U	2U	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	2U	2U	2U	2U	2U	-	-	-	-	-	-	10U	2U	-	-	2U	2U	2U	2U	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	3U	3U	3U	3U	3U	-	-	-	-	-	-	15U	3U	-	-	3U	3U	3U	3U	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	3U	3U	3U	3U	3U	-	-	-	-	-	-	15U	3U	-	-	3U	3U	3U	3U	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	3UJ	3U	3U	3U	3U	-	-	-	-	-	-	15U	3U	-	-	3U	3U	3U	3U	-
Acetone	ug/L	N	6000	-	-	-	-	6U	6U	30	6U	6U	-	-	-	-	-	-	30U	10J	-	-	6U	6U	6U	6U	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	3J	3J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5J	0.5U	0.5U	3U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
Bromoform	ug/L	N	4	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
Carbon disulfide	ug/L	N	700	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
Chlorobenzene	ug/L	N	50	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	4U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	-
Chloroethane	ug/L	N	5	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
Chloroform	ug/L	N	70	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	4U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	4U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
Cyclohexane	ug/L	N	100	-	-	-	-	2U	9	2U	2U	2U	-	-	-	-	-	-	10U	2U	-	-	2U	2U	2U	2U	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	2U	2U	2U	2U	2U	-	-	-	-	-	-	10U	2U	-	-	2U	2U	2U	2U	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	-	1U	9	14	11	10	-	-	-	-	-	-	9J	7	-	-	1U	1U	1U	1U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	3U	0.5UJ	-	-	0.5U	0.5U	0.5U	0.5U	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	1U	13	18	19	16	-	-	-	-	-	-	11J	12	-	-	1U	1U	1U	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	2U	2U	2U	2U	2U	-	-	-	-	-	-	10U	2U	-	-	2U	2U	2U	2U	-
Styrene	ug/L	N	100	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	4U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	4U	0.7U	5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	4U	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	2U	2U	2U	2U	2U	-	-	-	-	-	-	10U	2U	-	-	2U	2U	2U	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	-	-	-	-	-	-	5U	1U	-	-	1U	1U	1U	1U	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.9J	1J	0.8U	0.8J	0.8U	0.8U	0.8U	0.8J	0.8U	0.8U	4U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	20U	-	-	-	-	-	-	-	-	-	-	400	340	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	RW-93	RW-93	RW-93	RW-93	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	SB-10	SB-10	SB-10	SB-10
			Sample Date	04/04/2008	03/20/2009	03/17/2010	05/12/2011	10/28/2003	09/10/2004	03/24/2005	09/08/2005	03/30/2006	09/20/2006	04/03/2007	04/10/2008	03/25/2009	02/18/2010	03/31/2011	05/30/2012	06/19/2013	08/16/2013	06/27/2014	02/16/2018	05/07/2004	04/15/2008	10/02/2008	04/16/2009
			Field Sample ID	R093A6X	R093A7X	R093A8X	R093A9X	RW94A2	R094A3X	R094A4X	R094A5X	R094A6X	R094A7X	R094A8X	R094A9X	R094B1X	R094B2X	R094B3X	R094B4X	R094B5X	R094B6	R094B7X	R094C1X	SB10204A	SB10208X	SB10408X	SB10209X
			SDG	1084984	1137154	RFS33	RFT21	RFE92	RFF23	RFF46	958509	983761	1006518	1032144	1085976	1137663	1183032	RFT04	RFU77	RFB10	CP076	CS119	CS648	GWC11	1086597	1113167	1140893
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.9U	0.8U	8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	1U	0.8U	8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	1U	10U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	1U	0.8U	8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	-	2U	20U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	1U	10U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.3U	1U	10U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	-	2U	20U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	1U	10U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.3U	1U	10U	1U
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	1U	10U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	1U	10U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2U	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.3U	1U	10U	1U
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.3U	1U	10U	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	-	-	-	3U	30U	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	-	-	-	3U	30U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	-	-	-	3U	30U	3U
Acetone	ug/L	N	6000	-	-	-	-	20J	6U	6U	6U	6U	6U	-	-	-	-	-	-	-	6U	-	-	-	9J	60U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10U	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10U	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1	0.5U	0.9U	0.5U	5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30U	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.7U	1U	10U	1U
Bromoform	ug/L	N	4	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.8U	1U	10U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	2U	1U	10U	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	3J	10U	1U
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	1U	10U	1U
Chlorobenzene	ug/L	N	50	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	0.8U	0.8U	8U	0.8U
Chloroethane	ug/L	N	5	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	2U	1U	10U	1U
Chloroform	ug/L	N	70	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	1U	0.8U	8U	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	2U	1U	10U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	1U	0.8U	8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	1U	10U	1U
Cyclohexane	ug/L	N	100	-	-	-	-	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	-	2U	20U	2U
Dibromochloromethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	1U	10U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	-	2U	20U	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	-	1U	2J	3J	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	1U	10U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12000	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	1U	10U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	0.5U	0.5U	0.5J	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	0.5U	-	-	-	5J	6J	6
Methylcyclohexane	ug/L	N	100	-	-	-	-	1U	2J	4J	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	1U	10U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	2U	2U	20U	2U
Styrene	ug/L	N	100	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	-	1U	10U	1U
Tetrachloroethene	ug/L	N	1	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	1U	0.8U	8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.8U	0.7U	7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	-	-	1U	0.8U	8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	0.6U	1U	10U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	1U	1U	10U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	-	-	2U	2U	20U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	-	-	2U	1U	10U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.9U	0.8U	8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20U	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B
			Sample Date	10/14/2009	04/13/2010	10/21/2010	04/22/2011	10/06/2011	04/13/2012	10/02/2012	10/18/2013	05/16/2014	10/03/2014	05/01/2015	10/06/2015	05/07/2004	08/03/2004	10/20/2004	02/08/2005	04/22/2005	07/07/2005	10/18/2005	01/04/2006	04/11/2006	07/25/2006	10/04/2006	01/17/2007
			Field Sample ID	SB10409X	SB10210X	SB10410X	SB10211X	SB10411X	SB10212X	SB10412X	SB10413X	SB10214X	SB10414X	SB10215X	SB10415X	SB13B204A	SB13B304	SB13B404X	SB13B105X	SB13B205X	SB13B305X	SB13B405X	SB13B106X	SB13B206X	SB13B306X	SB13B406X	SB13B107X
			SDG	1166426	RFS38	RFS74	RFT12	RFT76	RFU42	RFV48	CS030	CS099	CS165	CS225	CS295	GWC11	GWC14	RFF31	RFF37	GWC19	950313	963655	973162	985249	998726	1008498	1021982
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.9U	-	-	-	0.8U	-	-	-	0.8U	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	1U	-	-	-	0.8U	-	-	-	0.8U	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	-	-	-	1U	-	-	-	1U	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	1U	-	-	-	0.8U	-	-	-	0.8U	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	-	-	-	-	2U	-	-	-	2U	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	-	-	-	1U	-	-	-	1U	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	0.3U	-	0.3U	-	1U	-	-	-	1U	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	-	-	-	-	2U	-	-	-	2U	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	-	-	-	-	1U	-	-	-	1U	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	0.3U	-	0.3U	-	1U	-	-	-	1U	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	-	-	-	1U	-	-	-	1U	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	-	-	-	1U	-	-	-	1U	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	0.2U	-	0.2U	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	0.3U	-	0.3U	-	1U	-	-	-	1U	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	0.3U	-	0.3U	-	1U	-	-	-	1U	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	-	-	-	-	3U	-	-	-	3U	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	-	-	-	-	3U	-	-	-	3U	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	-	-	-	-	3U	-	-	-	3U	-	-	-
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	12J	6UJ	6U	-	-	-	-	6U	-	-	-	6U	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	10U	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	10U	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.9U	0.9U	0.9U	0.9U	0.5U	0.9U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	30U	-	29U	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.7U	-	-	-	1U	-	-	-	1U	-	-	-
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.8U	-	-	-	1U	-	-	-	1U	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	2U	-	-	-	1U	-	-	-	1U	-	-	-
Carbon disulfide	ug/L	N	700	2J	1J	1U	1J	1U	1U	1U	1J	4J	1J	1UJ	3J	-	-	-	-	1U	-	-	-	1U	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	-	-	-	1U	-	-	-	1U	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	2U	-	-	-	1U	-	-	-	1U	-	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	1U	-	-	-	0.8U	-	-	-	0.8U	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	2U	-	-	-	1U	-	-	-	1U	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	1U	-	-	-	0.8U	-	-	-	0.8U	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	-	-	-	1U	-	-	-	1U	-	-	-
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	-	-	-	-	2U	-	-	-	2U	-	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	-	-	-	1U	-	-	-	1U	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5UJ	0.5U	-	-	-	-	2U	-	-	-	2U	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	-	-	-	-	1U	-	-	-	1U	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	-	-	-	-	1U	-	-	-	1U	-	-	-
Methyl-t-butyl ether	ug/L	N	70	7	7	6	7	5	6	7	5	5	5	5J	6	-	-	-	-	0.9J	-	-	-	1J	-	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	-	-	-	-	1U	-	-	-	1U	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	-	-	-	2U	-	-	-	2U	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	-	-	-	-	1U	-	-	-	1U	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	1U	-	-	-	0.8U	-	-	-	0.8U	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5UJ	0.5U	0.8U	0.8U	0.8U	0.8U	0.7U	0.8U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	1U	-	-	-	0.8U	-	-	-	0.8U	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.6U	-	-	-	1U	-	-	-	1U	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	1U	-	-	-	1U	-	-	-	1U	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5UJ	0.5U	2U	-	-	-	2U	-	-	-	2U	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	2U	-	-	-	1U	-	-	-	1U	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.9U	0.9U	0.9U	0.9U	0.8U	0.9U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B
			Sample Date	04/24/2007	08/09/2007	10/17/2007	01/31/2008	04/15/2008	07/15/2008	10/03/2008	02/10/2009	04/14/2009	08/04/2009	10/21/2009	01/22/2010	04/15/2010	07/13/2010	10/29/2010	02/17/2011	04/22/2011	07/12/2011	10/06/2011	01/20/2012	04/13/2012	07/17/2012
			Field Sample ID	SB13B207X	SB13B307X	SB13B07X	SB13B108X	SB13B208X	SB13B308X	SB13B408X	SB13B109X	SB13B209X	SB13B309X	SB13B409X	SB13B110X	SB13B210X	SB13B310X-100713	SB13B410X	SB13B111X	SB13B211X	SB13B311X	SB13B411X	SB13B112X	SB13B212X	SB13B312X
			SDG	1035058	1050859	1061506	1075580	1086598	1100673	1113378	1131631	1140444	1156238	1167395	1179741	RFS39	RFS56	RFS76	RFS88	RFT12	RFT41	RFT76	RFU01	RFU42	RFV10
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
1,1-Dichloroethane	ug/L	N	50	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
1,2-Dibromoethane	ug/L	N	0	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,2-Dichloroethane	ug/L	N	2	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,2-Dichloropropane	ug/L	N	1	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,4-Dichlorobenzene	ug/L	N	75	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-
4-Methyl-2-pentanone	ug/L	N	100	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-
Acetone	ug/L	N	6000	9J	-	-	-	6U	-	-	-	6U	-	-	-	6U	-	-	-	6U	-	-	-	6U	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Bromoform	ug/L	N	4	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Carbon disulfide	ug/L	N	700	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Carbon Tetrachloride	ug/L	N	1	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Chlorobenzene	ug/L	N	50	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
Chloroethane	ug/L	N	5	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Chloroform	ug/L	N	70	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Cyclohexane	ug/L	N	100	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
Dibromochloromethane	ug/L	N	1	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Methyl-t-butyl ether	ug/L	N	70	1J	-	-	-	0.9J	-	-	-	1J	-	-	-	1J	-	-	-	2J	-	-	-	2J	-
Methylcyclohexane	ug/L	N	100	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
Styrene	ug/L	N	100	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Tetrachloroethene	ug/L	N	1	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14
			Sample Date	10/04/2012	01/15/2013	05/02/2013	07/16/2013	10/18/2013	02/18/2014	04/29/2014	07/24/2014	10/03/2014	01/16/2015	05/01/2015	07/21/2015	10/06/2015	10/02/2001	01/15/2002	04/01/2002	07/11/2002	10/02/2002	01/06/2003	04/22/2003	07/09/2003	10/14/2003	05/06/2004	07/28/2004
			Field Sample ID	SB13B412X	SB13B113X	SB13B213X	SB13B313X	SB13B413X	SB13114X	SB13214X	SB13314X	SB13B414X	SB13115X	SB13B215X	SB13B315X	SB13B415X	SB14401	SB14102	SB14202	SB14302	SB14402Y	SB14103Y	SB14203	SB14303	SB14403A	SB14204	SB14304
			SDG	RFV51	RFX33	RFZ25	RFB41	CS030	CS063	CS092	CS130	CS165	CS196	CS225	CS265	CS295		267959	278300	292569	GWC01	GWC02	GWC04	GWC06	GWC09	GWC11	GWC14
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	0.8U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	0.9U	-	-	0.9U	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	0.8U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	0.8U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	1U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	0.9U	-	10.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	1U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	0.8U	-	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-
1,2-Dichloroethane	ug/L	N	2	-	-	1U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	2U	-	-	1U	-
1,2-Dichloropropane	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.0U	-	0.2U	-	0.2U	-	0.2U	0.2U	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	0.8U	-	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	0.9U	-	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	2U	-
2-Hexanone	ug/L	N	300	-	-	3U	-	-	-	3U	-	-	-	3UJ	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	3U	-	-	-	3U	-	-	-	3UJ	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	-	-	6U	-	-	-	6U	-	-	-	6U	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0U	-	-	-	40U	-	-	10U	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0U	-	-	-	10U	-	-	10U	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.65U	1.00U	1.0U	1.00U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.0U	-	29U	-	32U	-	29U	30U	-
Bromodichloromethane	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	0.7U	-	-	0.7U	-
Bromoform	ug/L	N	4	-	-	1U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	0.8U	-	-	0.8U	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	1U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	2U	-	-	2U	-
Carbon disulfide	ug/L	N	700	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-
Chlorobenzene	ug/L	N	50	-	-	0.8U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	0.8U	-	-	0.8U	-
Chloroethane	ug/L	N	5	-	-	1U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	2U	-	-	2U	-
Chloroform	ug/L	N	70	-	-	0.8U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	1U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	2U	-	-	2U	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	0.8U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	-	-	-	-	1U	-	-	1U	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-
Cyclohexane	ug/L	N	100	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	2U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.73U	1.00U	1.0U	1.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	1J	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	-	5.0U	-	-	-	2U	-	-	2U	-
Styrene	ug/L	N	100	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	0.8U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.61U	1.00U	1.0U	1.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	0.8U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	-	-	-	-	1U	-	-	1U	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	0.6U	-	-	0.6U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	2U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	2U	-	-	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	1.0U	-	-	-	2U	-	-	2U	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.61U	1.0U	1.0U	1.00U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-15
			Sample Date	10/27/2004	02/08/2005	04/20/2005	07/12/2005	10/13/2005	01/04/2006	04/11/2006	07/25/2006	10/04/2006	01/09/2007	04/20/2007	08/14/2007	10/23/2007	01/23/2008	04/15/2008	07/16/2008	10/02/2008	01/15/2009	04/22/2009	08/05/2009	10/14/2009	01/22/2010	04/15/2010	10/01/2001
			Field Sample ID	SB14404X	SB14105X	SB14205X	SB14305X	SB14405X	SB14106X	SB14206X	SB14306X	SB14406X	SB14107X	SB14207X	SB14307X	SB14407X	SB14108X	SB14208X	SB14308X	SB14408X	SB14109X	SB14209X	SB14309X	SB14409X	SB14110X	SB14210X	SB15401
			SDG	RFF32	RFF37	GWC19	950875	963111	973162	985249	998726	1008498	1020845	1034667	1051501	1062332	1074540	1086598	1100938	1113167	1128342	1141708	1156453	1166426	1179741	RFS39	
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
1,1-Dichloroethane	ug/L	N	50	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,2,4-Trichlorobenzene	ug/L	N	9	0.3U	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	0.0009U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
1,2-Dibromoethane	ug/L	N	0	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	0.3U	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	0.0008U
1,2-Dichloroethane	ug/L	N	2	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,2-Dichloropropane	ug/L	N	1	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,2-Diphenylhydrazine	ug/L	N	NS	0.2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	0.3U	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	0.0008U
1,4-Dichlorobenzene	ug/L	N	75	0.3U	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	0.0009U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-
Acetone	ug/L	N	6000	-	-	6U	-	-	-	6U	-	-	-	6U	-	-	-	6U	-	-	-	6U	-	-	-	6U	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.9U	0.9U	0.5U	0.9U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.00065U
Benzidine	ug/L	N	NS	29U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	1U	-	-	-	1U	-	-	-	2J	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Bromoform	ug/L	N	4	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Carbon disulfide	ug/L	N	700	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Carbon Tetrachloride	ug/L	N	1	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Chlorobenzene	ug/L	N	50	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
Chloroethane	ug/L	N	5	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Chloroform	ug/L	N	70	-	-	0.8U	-	-	-	0.8U	-	-	-	13	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Cyclohexane	ug/L	N	100	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
Dibromochloromethane	ug/L	N	1	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.00073U
Isopropylbenzene	ug/L	N	700	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Methyl-t-butyl ether	ug/L	N	70	-	-	0.5U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	0.5U	-
Methylcyclohexane	ug/L	N	100	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
Styrene	ug/L	N	100	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Tetrachloroethene	ug/L	N	1	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
Toluene	ug/L	N	600	0.8U	0.8U	0.7U	0.8U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.00061U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Xylene (total)	ug/L	N	1000	0.9U	0.9U	0.8U	0.9U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.00061U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15
			Sample Date	01/14/2002	04/01/2002	07/09/2002	10/03/2002	01/07/2003	04/21/2003	10/15/2003	05/07/2004	07/27/2004	10/27/2004	02/08/2005	04/20/2005	07/07/2005	10/13/2005	01/11/2006	04/11/2006	07/25/2006	10/04/2006	01/09/2007	04/20/2007	08/15/2007	10/23/2007	01/23/2008	04/15/2008
			Field Sample ID	SB15102	SB15202	SB15302	SB15402X	SB15103Y	SB15203X	SB15403A	SB15204A	SB15304	SB15404X	SB15105X	SB15205x	SB15305X	SB15405X	SB15106X	SB15206X	SB15306X	SB15406X	SB15107X	SB15207X	SB15307X	SB15407X	SB15108X	SB15208X
			SDG	267744	278300	292226	GWC01	GWC02	GWC04	GWC09	GWC11	GWC14	RFF32	RFF37	GWC19	950313	963111	974020	985249	998726	1008498	1020845	1034667	1051887	1062332	1074540	1086598
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	1.0U	-	-	-	0.9U	-	0.9U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	1.0U	-	-	-	1U	-	1U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	1.0U	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
1,1,2-Trichloroethane	ug/L	N	3	-	1.0U	-	-	-	1U	-	1U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	-	2U
1,1-Dichloroethane	ug/L	N	50	-	1.0U	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	10.0U	-	0.6U	-	0.3U	0.3U	0.3U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	-	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1.0U	-	0.6U	-	0.3U	0.3U	0.3U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
1,2-Dichloroethane	ug/L	N	2	-	1.0U	-	-	-	2U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
1,2-Dichloropropane	ug/L	N	1	-	1.0U	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	10.0U	-	0.4U	-	0.2U	0.2U	0.2U	-	-	-	-	-	-	-	1U	-	1U	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1.0U	-	0.6U	-	0.3U	0.3U	0.3U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
1,4-Dichlorobenzene	ug/L	N	75	-	1.0U	-	0.6U	-	0.3U	0.3U	0.3U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	-	-	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	2U	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	-	-	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	-	-	3U
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	-	6U	-	15J	-	6U	-	6U	-	7J	-	6U	-	-	-	6U
Acrolein	ug/L	N	NS	-	2.0U	-	-	-	40U	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	2.0U	-	-	-	10U	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1.00U	1.0U	1.00U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.5U	0.9U	0.5U	0.9U	0.5U	0.5J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	10.0U	-	60U	-	29U	34U	31U	-	-	-	-	-	-	-	21U	-	20U	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	1.0U	-	-	-	0.7U	-	0.7U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Bromoform	ug/L	N	4	-	1.0U	-	-	-	0.8U	-	0.8U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	1.0U	-	-	-	2U	-	2U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Carbon Tetrachloride	ug/L	N	1	-	1.0U	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Chlorobenzene	ug/L	N	50	-	1.0U	-	-	-	0.8U	-	0.8U	-	3J	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	1J	-	-	-	0.8U
Chloroethane	ug/L	N	5	-	1.0U	-	-	-	2U	-	2U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Chloroform	ug/L	N	70	-	1.0U	-	-	-	1U	-	1U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	-	1.0U	-	-	-	2U	-	2U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	1U	-	1U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	1.0U	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	-	2U
Dibromochloromethane	ug/L	N	1	-	1.0U	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	1.0U	-	-	-	-	-	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	-	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	1.00U	1.0U	1.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	-	6	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	2J	-	-	-	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	5.0U	-	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	-	2U
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Tetrachloroethene	ug/L	N	1	-	1.0U	-	-	-	1U	-	1U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
Toluene	ug/L	N	600	1.00U	1.0U	1.00U	0.8U	0.8U	0.8U	0.8U	0.8U	1J	0.7U	0.8U	0.7U	0.8U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	1U	-	1U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	1.0U	-	-	-	0.6U	-	0.6U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	1.0U	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	1.0U	-	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	1.0U	-	-	-	2U	-	2U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Xylene (total)	ug/L	N	1000	1.0U	1.0U	1.00U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.8U	0.9U	0.8U	0.9U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15
			Sample Date	07/17/2008	10/02/2008	02/10/2009	04/16/2009	08/05/2009	10/14/2009	01/22/2010	04/13/2010	07/13/2010	10/21/2010	02/17/2011	04/22/2011	07/12/2011	10/27/2011	01/20/2012	04/13/2012	07/17/2012	10/02/2012	11/12/2012	01/18/2013	05/10/2013	07/03/2013	12/09/2013	03/04/2014
			Field Sample ID	SB15308X	SB15408X	SB15109X	SB15209X	SB15309X	SB15409X	SB15110X	SB15210X	SB15310X-100713	SB15410X	SB15111X	SB15211X	SB15311X	SB15411X	SB15112X	SB15212X	SB15312X	SB15412X	SB15A1X	SB15113X	SB15A3X	SB15A4X	SB15A5X	SB15114X
			SDG	1101155	1113167	1131631	1140893	1156453	1166426	1179741	RFS38	RFS56	RFS74	RFS88	RFT12	RFT41	RFT82	RFU01	RFU42	RFV10	RFV48	RFX03	RFX36	RFZ38	CP033	CP234	CS068
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	0.8U	-	0.8U	0.8U	0.8U	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	0.8U	-	0.8U	0.8U	0.8U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	0.8U	-	0.8U	0.8U	0.8U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	2U	-	2U	2U	2U	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	2U	-	2U	2U	2U	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	3U	-	3U	3U	3U	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	3U	-	3U	3U	3U	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	3U	-	3U	3U	3U	-
Acetone	ug/L	N	6000	-	-	-	12J	-	-	-	6U	-	-	-	6U	-	-	-	6U	-	-	6U	-	6U	6U	6U	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
Bromoform	ug/L	N	4	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1UJ	1U	-
Carbon disulfide	ug/L	N	700	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
Chlorobenzene	ug/L	N	50	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	0.8U	-	0.8U	0.8U	1J	-
Chloroethane	ug/L	N	5	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1UJ	1U	-
Chloroform	ug/L	N	70	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	0.8U	-	0.8U	0.8U	0.8U	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	0.8U	-	0.8U	0.8U	0.8U	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
Cyclohexane	ug/L	N	100	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	2U	-	2U	2U	2U	-
Dibromochloromethane	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	2U	-	2U	2U	2U	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	4J	-	-	-	0.6J	-	-	-	0.5U	-	-	-	0.5J	-	-	4J	-	0.5U	0.5U	0.5U	-
Methylcyclohexane	ug/L	N	100	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	2U	-	2U	2U	2U	-
Styrene	ug/L	N	100	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
Tetrachloroethene	ug/L	N	1	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	0.8U	-	0.8U	0.8U	0.8U	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	0.8U	-	0.8U	0.8U	0.8U	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	2U	-	2U	2U	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20U	-	-	20U	20U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16
			Sample Date	05/16/2014	07/10/2014	10/03/2014	02/12/2015	03/31/2015	03/31/2015	05/01/2015	07/14/2015	07/21/2015	10/06/2015	10/06/2015	02/07/2018	10/04/2001	01/16/2002	04/02/2002	07/08/2002	10/03/2002	01/07/2003	04/22/2003	07/08/2003	10/10/2003	04/29/2004	08/03/2004	10/21/2004
			Field Sample ID	SB15R214X	SB15RA6X	SB15R414X	SB15RA8X	D0331151	SB15R115X	SB15R215X	SB15RA9X	SB15R315X	D1006151	SB15R415X	SB15R118X	SB16401	SB16102	SB16202	SB16302	SB16402Y	SB16103X	SB16203X	SB16303	SB16403	SB16204A	SB16304	SB16404X
			SDG	CS099	CP408	CS165	CP659	CS214	CS214	CS225	CP779	CS265	CS295	CS295	CS642		268146	278558	292003	GWC01	GWC02	GWC04	GWC06	GWC08	GWC10	GWC14	RFF31
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	0.9U	-	-	0.9U	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	-	2U	-	-	2U	2U	-	-	-	2U	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	-	1U	-	-	1U	1U	-	-	-	1U	0.9U	-	10.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-	0.3U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	-	2U	-	-	2U	2U	-	-	-	2U	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	-	1U	-	-	1U	1U	-	-	-	1U	0.8U	-	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-	0.3U
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	2U	-	-	1U	-	-
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.0U	-	0.2U	-	0.2U	-	0.2U	0.2U	-	0.2U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	-	1U	-	-	1U	1U	-	-	-	1U	0.8U	-	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-	0.3U
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	-	1U	-	-	1U	1U	-	-	-	1U	0.9U	-	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-	0.3U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	-	3U	-	-	3U	3U	-	-	-	3U	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	2U	-	-
2-Hexanone	ug/L	N	300	3U	3U	-	3U	-	-	3UJ	3U	-	-	-	3U	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	-	3U	-	-	3UJ	3U	-	-	-	3U	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	6U	6U	-	6U	-	-	6U	6U	-	-	-	6U	-	-	-	-	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0U	-	-	-	40U	-	-	10U	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0U	-	-	-	10U	-	-	10U	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.7J	0.9J	0.5U	0.5U	0.5J	0.5U	0.5U	0.8J	0.5U	0.5U	0.65U	1.00U	1.0U	1.00U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.0U	-	30U	-	32U	-	30U	30U	-	29U
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	0.7U	-	-	0.7U	-	-
Bromoform	ug/L	N	4	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	0.8U	-	-	0.8U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	2U	-	-	2U	-	-
Carbon disulfide	ug/L	N	700	1U	1U	-	1U	-	-	1U	1U	-	-	-	1U	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-
Chlorobenzene	ug/L	N	50	1	0.8J	-	0.5U	-	-	0.5U	0.6J	-	-	-	0.5U	-	-	1.0U	-	-	-	0.8U	-	-	0.8U	-	-
Chloroethane	ug/L	N	5	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	2U	-	-	2U	-	-
Chloroform	ug/L	N	70	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	2U	-	-	2U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	-	-	-	-	1U	-	-	1U	-	-
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-
Cyclohexane	ug/L	N	100	2U	2U	-	2U	-	-	2U	2U	-	-	-	2U	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	-	-	-	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.73U	1.00U	1.0U	1.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	1U	1U	-	1U	-	-	1U	1U	-	-	-	1U	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	-	1U	-	-	1U	1U	-	-	-	1U	-	-	-	-	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.7J	0.5U	-	6	-	-	3	0.5U	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	-	1U	-	-	1U	1U	-	-	-	1U	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	-	2U	-	-	2U	2U	-	-	-	0.5U	-	-	5.0U	-	-	-	2U	-	-	2U	-	-
Styrene	ug/L	N	100	1U	1U	-	1U	-	-	1U	1U	-	-	-	1U	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.61U	1.00U	1.0U	1.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	-	-	-	-	1U	-	-	1U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	0.6U	-	-	0.6U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	2U	-	-	2U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	1.0U	-	-	-	2U	-	-	2U	-	-
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.61U	1.0U	1.0U	1.00U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	20J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16
			Sample Date	02/08/2005	04/22/2005	07/12/2005	10/18/2005	01/04/2006	04/11/2006	07/27/2006	10/04/2006	01/09/2007	04/24/2007	08/09/2007	10/17/2007	01/25/2008	05/01/2008	07/16/2008	10/03/2008	02/10/2009	04/14/2009	08/11/2009	10/14/2009	01/20/2010	04/15/2010	07/13/2010	10/29/2010
			Field Sample ID	SB16105X	SB16205X	SB16305X	SB16405X	SB16106X	SB16206X	SB16306X	SB16406X	SB16107X	SB16207X	SB16307X	SB16407X	SB16108X	SB16208X	SB16308X	SB16408X	SB16109X	SB16209X	SB16309X	SB16409X	SB16110x	SB16210X	SB16310X-100713	SB16410X
			SDG	RFF37	GWC19	950875	963655	973162	985249	999108	1008498	1020845	1035058	1050859	1061506	1074855	1089148	1100938	1113378	1131631	1140444	1157187	1166426	1179350	RFS39	RFS56	RFS76
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-
1,1-Dichloroethane	ug/L	N	50	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-
1,2-Dibromoethane	ug/L	N	0	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
1,2-Dichloroethane	ug/L	N	2	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
1,2-Dichloropropane	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-
Acetone	ug/L	N	6000	-	6U	-	-	-	6U	-	-	-	6U	-	-	-	6U	-	-	-	6U	-	-	-	6U	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.9U	0.5U	0.9U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
Bromoform	ug/L	N	4	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
Carbon disulfide	ug/L	N	700	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
Carbon Tetrachloride	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
Chlorobenzene	ug/L	N	50	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-
Chloroethane	ug/L	N	5	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
Chloroform	ug/L	N	70	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
Cyclohexane	ug/L	N	100	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-
Dibromochloromethane	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1J	-	-	-	1J	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	0.5U	-	-
Methylcyclohexane	ug/L	N	100	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-
Styrene	ug/L	N	100	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
Tetrachloroethene	ug/L	N	1	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-
Toluene	ug/L	N	600	0.8U	0.7U	0.8U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-
Xylene (total)	ug/L	N	1000	0.9U	0.8U	0.9U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A2 East Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-17	SB-17
			Sample Date	02/24/2011	04/21/2011	07/12/2011	10/05/2011	01/24/2012	04/19/2012	07/12/2012	10/04/2012	01/15/2013	05/02/2013	07/17/2013	10/11/2013	02/18/2014	04/29/2014	07/24/2014	10/09/2014	10/09/2014	01/16/2015	05/01/2015	07/21/2015	10/06/2015	01/12/2018	10/02/2001	01/15/2002
			Field Sample ID	SB16111X	SB16211X	SB16311X	SB16411X	SB16112X	SB16212X	SB16312X	SB16412X	SB16113X	SB16213X	SB16313X	SB16413X	SB16114X	SB16214X	SB16314X	D1009141	SB16414X	SB16115X	SB16215X	SB16315X	SB16415X	SB16A6X	SB17401	SB17102
			SDG	RFS91	RFT11	RFT41	RFT75	RFU02	RFU45	RFV08	RFV51	RFX33	RFZ25	RFB43	CS027	CS063	CS092	CS130	CS168	CS168	CS196	CS225	CS265	CS295	CQ939		267959
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	-	2U	-	-	2U	-	-
1,1-Dichloroethane	ug/L	N	50	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	-	-	-	1U	-	-	-	1U	-	0.5U	-	1U	-	-	-	-	1U	-	-	1U	0.9U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	-	2U	-	-	2U	-	-
1,2-Dibromoethane	ug/L	N	0	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	-	-	-	1U	-	-	-	1U	-	0.5U	-	1U	-	-	-	-	1U	-	-	1U	0.8U	-
1,2-Dichloroethane	ug/L	N	2	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
1,2-Dichloropropane	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	0.5U	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	-	-	-	1U	-	-	-	1U	-	0.5U	-	1U	-	-	-	-	1U	-	-	1U	0.8U	-
1,4-Dichlorobenzene	ug/L	N	75	-	1U	-	-	-	1U	-	-	-	1U	-	0.5U	-	1U	-	-	-	-	1U	-	-	1U	0.9U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	-	3U	-	-	3U	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	-	3UJ	-	-	3U	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	-	3UJ	-	-	3U	-	-
Acetone	ug/L	N	6000	-	6U	-	-	-	6U	-	-	-	6U	-	-	-	6U	-	-	-	-	9J	-	-	6U	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	1	0.5U	0.65U	1.00U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	22U	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
Bromoform	ug/L	N	4	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
Carbon disulfide	ug/L	N	700	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-
Carbon Tetrachloride	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
Chlorobenzene	ug/L	N	50	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
Chloroethane	ug/L	N	5	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
Chloroform	ug/L	N	70	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
Cyclohexane	ug/L	N	100	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	-	2U	-	-	2U	-	-
Dibromochloromethane	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.6J	0.5U	0.73U	1.00U
Isopropylbenzene	ug/L	N	700	-	1U	-	-	-	2J	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
Methylcyclohexane	ug/L	N	100	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	-	2U	-	-	0.5U	-	-
Styrene	ug/L	N	100	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-
Tetrachloroethene	ug/L	N	1	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.9J	0.5U	0.61U	1.00U
trans-1,2-Dichloroethene	ug/L	N	100	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5J	0.5U	0.5U	3	0.5U	0.61U	1.0U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46J	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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			Sample Date	04/02/2002	07/11/2002	10/03/2002	01/06/2003	04/22/2003	07/09/2003	10/14/2003	05/06/2004	07/28/2004	10/27/2004	02/08/2005	04/20/2005	07/07/2005	10/13/2005	01/11/2006	04/11/2006	07/25/2006	10/06/2006	01/09/2007	04/20/2007	08/14/2007	10/23/2007	01/23/2008	04/29/2008
			Field Sample ID	SB17202	SB17302	SB17402Y	SB17103Y	SB17203Y	SB17303	SB17403	SB17204	SB17304	SB17404X	SB17105X	SB17205X	SB17305X	SB17405X	SB17106X	SB17206X	SB17306X	SB17406X	SB17107X	SB17207X	SB17307X	SB17407X	SB17108X	SB17208X
			SDG	278558	292569	GWC01	GWC02	GWC04	GWC06	GWC09	GWC11	GWC14	RFF32	RFF37	GWC19	950313	963111	974020	985249	998726	1008884	1020845	1034667	1051501	1062332	1074540	1088682
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	1.0U	-	-	-	0.9U	-	-	0.9U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U
1,1,1-Trichloroethane	ug/L	N	30	1.0U	-	-	-	1U	-	-	1U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1.0U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
1,1,2-Trichloroethane	ug/L	N	3	1.0U	-	-	-	1U	-	-	1U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U
1,1-Dichloroethane	ug/L	N	50	1.0U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
1,2,4-Trichlorobenzene	ug/L	N	9	10.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-	0.3U	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-	0.3U	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
1,2-Dichloroethane	ug/L	N	2	1.0U	-	-	-	2U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
1,2-Dichloropropane	ug/L	N	1	1.0U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
1,2-Diphenylhydrazine	ug/L	N	NS	10.0U	-	0.2U	-	0.2U	-	0.2U	0.2U	-	0.2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-	0.3U	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
1,4-Dichlorobenzene	ug/L	N	75	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-	0.3U	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	2U	-	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	-	-	-	6U	-	-	-	6U	-	-	-	6U	-	-	-	6U
Acrolein	ug/L	N	NS	2.0U	-	-	-	40U	-	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	2.0U	-	-	-	10U	-	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1.0U	1.00U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.5U	0.9U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	10.0U	-	30U	-	29U	-	29U	30U	-	29U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1.0U	-	-	-	0.7U	-	-	0.7U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
Bromoform	ug/L	N	4	1.0U	-	-	-	0.8U	-	-	0.8U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1.0U	-	-	-	2U	-	-	2U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
Carbon Tetrachloride	ug/L	N	1	1.0U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
Chlorobenzene	ug/L	N	50	1.0U	-	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U
Chloroethane	ug/L	N	5	1.0U	-	-	-	2U	-	-	2U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
Chloroform	ug/L	N	70	1.0U	-	-	-	1U	-	-	1U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U
Chloromethane (Methyl chloride)	ug/L	N	NS	1.0U	-	-	-	2U	-	-	2U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	1U	-	-	1U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1.0U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U
Dibromochloromethane	ug/L	N	1	1.0U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	1.0U	-	-	-	-	-	-	-	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	1.0U	1.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	0.5U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	5.0U	-	-	-	2U	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
Tetrachloroethene	ug/L	N	1	1.0U	-	-	-	1U	-	-	1U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U
Toluene	ug/L	N	600	1.0U	1.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.7U	0.8U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	1U	-	-	1U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1.0U	-	-	-	0.6U	-	-	0.6U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1.0U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	1.0U	-	-	-	2U	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1.0U	-	-	-	2U	-	-	2U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U
Xylene (total)	ug/L	N	1000	1.0U	1.00U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.8U	0.9U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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			Sample Date	07/17/2008	10/02/2008	02/10/2009	04/22/2009	08/04/2009	10/14/2009	01/20/2010	04/15/2010	07/13/2010	10/21/2010	01/24/2011	02/24/2011	04/21/2011	07/12/2011	10/06/2011	04/03/2012	07/12/2012	10/04/2012	01/18/2013	04/25/2013	04/25/2013	07/17/2013	10/11/2013	03/27/2014
			Field Sample ID	SB17308X	SB17408X	SB17109X	SB17209X	SB17309X	SB17409X	SB17110X	SB17210X	SB17310X-100713	SB17410X	SB17112X	SB17111X	SB17211X	SB17311X	SB17411X	SB17212X	SB17312X	SB17412X	SB17113X	D0425131	SB17213X	SB17313X	SB17413X	SB17114X
			SDG	1101155	1113167	1131631	1141708	1156238	1166426	1179350	RFS39	RFS56	RFS74	RFU02	RFS91	RFT11	RFT41	RFT76	RFU36	RFV08	RFV51	RFX36	RFZ13	RFZ13	RFB43	CS027	CS077
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	0.8U	-	-	-	0.8U	-	-	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	0.8U	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	0.8U	-	-	-	0.8U	-	-	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	0.8U	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	0.8U	-	-	-	0.8U	-	-	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	0.8U	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	2U	-	-	-	2U	-	-	-	-	2U	-	-	2U	-	-	-	2U	2U	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	0.6U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	2U	-	-	-	2U	-	-	-	-	2U	-	-	2U	-	-	-	2U	2U	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	0.6U	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6U	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	0.6U	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	0.6U	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	3U	-	-	-	3U	-	-	-	-	3U	-	-	3U	-	-	-	3U	3U	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	3U	-	-	-	3U	-	-	-	-	3U	-	-	3U	-	-	-	3U	3U	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	3U	-	-	-	3U	-	-	-	-	3U	-	-	3U	-	-	-	3U	3U	-	-	-
Acetone	ug/L	N	6000	-	-	-	6U	-	-	-	6U	-	-	-	-	6U	-	-	6U	-	-	-	6U	6U	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23U	-
Bromodichloromethane	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
Bromoform	ug/L	N	4	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
Chlorobenzene	ug/L	N	50	-	-	-	0.8U	-	-	-	0.8U	-	-	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	0.8U	-	-	-
Chloroethane	ug/L	N	5	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
Chloroform	ug/L	N	70	-	-	-	0.8U	-	-	-	0.8U	-	-	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	0.8U	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	0.8U	-	-	-	0.8U	-	-	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	0.8U	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
Cyclohexane	ug/L	N	100	-	-	-	2U	-	-	-	2U	-	-	-	-	2U	-	-	2U	-	-	-	2U	2U	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	2U	-	-	-	2U	-	-	-	-	2U	-	-	2U	-	-	-	2U	2U	-	-	-
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Isopropylbenzene	ug/L	N	700	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	-	-	-	0.5U	0.5U	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	2U	-	-	-	2U	-	-	-	-	2U	-	-	2U	-	-	-	2U	2U	-	-	-
Styrene	ug/L	N	100	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	0.8U	-	-	-	0.8U	-	-	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	0.8U	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	0.8U	-	-	-	0.8U	-	-	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	0.8U	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	2U	-	-	-	2U	-	-	-	-	2U	-	-	2U	-	-	-	2U	2U	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	-	1U	-	-	1U	-	-	-	1U	1U	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	TP2-018R	TP2-018R	TP2-018R	TP2-018R	TP2-018R
			Sample Date	05/15/2014	07/24/2014	10/09/2014	03/31/2015	05/05/2015	07/21/2015	10/08/2015	05/03/2017	08/23/2017	11/01/2017	02/06/2018	05/02/2018
			Field Sample ID	SB17214X	SB17314X	SB17414X	SB17115X	SB17215X	SB17315X	SB17415X	TP2018RB8X	TP2018RB9X	TP2018RC1X	TP2018RC2X	TP2018RC3X
			SDG	CS098	CS130	CS168	CS214	CS226	CS265	CS296	CQ624	CQ744	CQ859	CQ965	CR046
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
1,1,1-Trichloroethane	ug/L	N	30	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
1,1,2-Trichloroethane	ug/L	N	3	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	-	-	2U	-	-	4U	10U	2U	2U	20UJ
1,1-Dichloroethane	ug/L	N	50	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	-	-	1U	-	-	2U	5U	1U	1U	10UJ
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	-	-	2U	-	-	4U	10U	2U	2U	20UJ
1,2-Dibromoethane	ug/L	N	0	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	-	-	1U	-	-	2U	5U	1U	1U	10UJ
1,2-Dichloroethane	ug/L	N	2	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
1,2-Dichloropropane	ug/L	N	1	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	-	-	1U	-	-	2U	5U	1U	1U	10UJ
1,4-Dichlorobenzene	ug/L	N	75	1U	-	-	-	1U	-	-	2U	5U	1U	1U	10UJ
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	-	-	3U	-	-	55	40J	7J	14	30UJ
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	-	-	-	3UJ	-	-	6U	15U	3U	3U	30UJ
4-Methyl-2-pentanone	ug/L	N	100	3U	-	-	-	3UJ	-	-	6U	15U	3U	3U	30UJ
Acetone	ug/L	N	6000	6U	-	-	-	6U	-	-	880	1000	96	130	320J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	86	100	32	80	78J
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
Bromoform	ug/L	N	4	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	-	-	-	0.5U	-	-	9	4J	4	0.5U	5UJ
Carbon disulfide	ug/L	N	700	1U	-	-	-	1U	-	-	7J	12J	9	1J	10UJ
Carbon Tetrachloride	ug/L	N	1	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
Chlorobenzene	ug/L	N	50	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
Chloroethane	ug/L	N	5	0.5U	-	-	-	0.5U	-	-	5	5	0.5U	4	5UJ
Chloroform	ug/L	N	70	0.5U	-	-	-	0.5U	-	-	2J	3U	2	0.7J	5UJ
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	-	-	-	0.5U	-	-	110	48	98	1	5UJ
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
Cyclohexane	ug/L	N	100	2U	-	-	-	2U	-	-	64	62	50	58	33J
Dibromochloromethane	ug/L	N	1	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
Ethane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	51	30	16	32	28J
Isopropylbenzene	ug/L	N	700	1U	-	-	-	1U	-	-	22	15J	8	11	12J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	-	-	1U	-	-	2U	5U	1U	1U	10UJ
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
Methylcyclohexane	ug/L	N	100	1U	-	-	-	1U	-	-	46	50	73	36	23J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	-	-	2U	-	-	4U	15J	5	3	8J
Styrene	ug/L	N	100	1U	-	-	-	1U	-	-	2U	5U	1U	1U	10UJ
Tetrachloroethene	ug/L	N	1	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	3U	0.5U	1	5UJ
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	-	-	-	1	-	-	1U	3U	0.5U	0.5U	5UJ
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	-	-	-	0.5U	-	-	1U	3U	0.5U	0.5U	5UJ
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	35	22	11	18	14J
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024
			Sample Date	12/04/2002	02/06/2003	06/16/2003	03/10/2005	08/11/2005	03/07/2006	09/01/2006	03/13/2007	03/04/2008	02/18/2009	03/11/2010	04/26/2011	06/07/2012	05/23/2013	09/23/2014	02/23/2018	06/29/1995	09/20/1996	10/15/2002	02/04/2003	09/02/2003	06/15/2005	11/11/2005	06/13/2006	11/30/2006	06/12/2007	08/08/2008	07/09/2009	06/08/2010	07/26/2011	07/26/2011	02/28/2012	04/05/2013	05/30/2014	02/19/2015
			Field Sample ID	A21TP1AY	A21TP1BY	A21TP1C	A21TP1E	A21TP1F	A21TP1G	A21TP1H	A21TP1I	A21TP1JX	A21TP1KX	A21TP1LX	A21TP1MX	A21TP1NX	A21TP1OX	A21TP1PX	A21TP1SX	MW-0024-A	MW-0024A	M024A1Y	M024A2Y	M024A5	M024A8X	M024A9X	M024B1X	M024B2X	M024B3X	M024B4X	M024B5X	M024B6X-100608	D0726111	M024B7X	M024B8X	M024B9X	M024C1X	M024C2X
			SDG	RFE43	RFE62	RFE77	RFF43	955073	980623	1004086	1029141	1080011	1132740	RFS33	RFT13	RFU80	RFZ65	CS159	CS652	PROJB506361	64183	RFE30	RFE62	RFE85	947574	967213	993388	1016155	1042260	1104631	1152857	RFS46	RFT46	RFT46	RFU13	RFY57	CS107	CS202
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG
Parameter Name	Report Units	Filtered	CMI GW Action Limit	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	10U	5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	9.6U	10U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5.0U	2U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	9.6U	10U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	9.6U	10U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	100U	10U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5.0U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	10U	5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	5.0U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	5.0U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5.0U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5.0U	5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	5.0U	5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5.0U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-0029	MW-0029	MW-0029	MW-0029	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030
			Sample Date	10/13/1997	12/12/2014	11/20/2017	02/16/2018	04/08/1997	09/09/1998	09/10/1998	02/19/1999	10/04/1999	02/01/2000	11/09/2000	03/28/2001	01/29/2002	07/31/2002	08/14/2002	12/05/2002	03/14/2003	06/19/2003	09/03/2003	10/07/2004	06/09/2005	11/02/2005	11/14/2006	05/25/2007	11/30/2007	06/26/2008	10/14/2008	06/24/2009	11/17/2009	05/11/2010	05/11/2010	10/06/2010	06/01/2011	11/10/2011	02/14/2012
			Field Sample ID	MW-0029-A1	M029A2X	M029A5X	M029A6X	MW-0030-A1	M030A3X	M030A3Y	M030A4	M030A5	M030A6	M030A7X	M030A8	M030A9	M030B2	M030B2T	M030B3Y	M030B4Y	M030B5	M030B6	M030B8X	M030B9X	M030C1X	M030C3X	M030C4X	M030C5X	M030C6X	M030C7X	M030C8X	M030C9X	D0511101	M030D1X-100511	M030D2X	M030D3X	M030D4X	M030D5X
			SDG	E26617	CS192	CQ897	CQ979	E20285	E39280	E39280	90656	93965	00399	B2465	E88311	269988	295373	297195	RFE45	RFE67	RFE77	RFE85	RFF28	946781	965777	1014239	1040018	1067672	1098093	1114995	1150741	RFS20	RFS42	RFS42	RFS69	RFT26	RFT85	RFU10
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	0.5U	0.5U	6	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	0.5J	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	5U	0.5U	0.5U	0.5U	0.36U	5.0U	-	0.5U	0.52U	0.52U	0.5U	2.0U	1.00U	1.00U	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	6.8U	1U	1U	1U	1.1U	-	5.9U	13U	11U	10U	0.4	2.2U	10.0U	12.5U	11.1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	4.8U	0.5U	0.5U	0.5U	0.85U	2.0U	-	2U	2.0U	2.0U	-	2.0U	1.00U	1.00U	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	6.2U	1U	1U	1U	1.5U	-	5.9U	13U	11U	10U	12U	2.2U	10.0U	12.5U	11.1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	6U	1U	1U	1U	1.5U	-	5.9U	13U	11U	10U	12U	2.2U	10.0U	12.5U	11.1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3.6U	3U	3U	3U	1U	5.0U	-	10U	10U	10U	10U	5.0U	2.00U	50.0U	50.0U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	-	6U	6U	7J	-	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	6U	6U	9J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	167	400	320	340	0.47U	1.0U	-	1U	1.0U	1.0U	1U	1.0U	1.00U	1.0U	2.0U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	0.5UJ	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	2.4U	1U	1U	1U	1U	5.0U	-	5U	5.0U	5.0U	5U	5.0U	1.00U	1.00U	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	4.6U	0.5U	0.5U	0.5U	0.4U	4.0U	-	4U	4.0U	4.0U	4U	2.0U	1.00U	1.00U	2.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	4.4U	0.5U	0.5U	0.5U	0.44U	5.0U	-	5U	5.0U	5.0U	5U	5.0U	1.00U	1.00U	2.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	-	67	48	45	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	0.5UJ	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	66.2	200	180	180	0.36U	5.0U	-	5U	5.0U	5.0U	5U	1.0U	1.00U	1.0U	2.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	12	13	13	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	4	3	2	-	-	-	-	-	-	-	-	-	-	-	1J	1J	2J	1J	1J	1J	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	56	46	46	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	3.9U	1U	1U	1U	0.37U	5.0U	-	5U	5.0U	5.0U	5U	5.0U	1.00U	1.00U	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	45.8	75	50	39	0.36U	5.0U	-	5U	5.0U	5.0U	5U	1.0U	1.00U	1.0U	2.0U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	0.5U	0.5U	0.5UJ	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	8U	0.5U	0.5U	0.5U	1.3U	-	-	-	-	-	-	1.0U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	270	460	430	440	0.62U	5.0U	-	5U	5.0U	5.0U	5U	5.0U	1.0U	1.0U	2.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031
			Sample Date	08/07/2012	03/05/2013	09/24/2013	06/03/2014	11/07/2014	06/30/2015	09/30/2015	04/08/1997	09/16/1997	09/11/1998	09/15/1998	02/19/1999	10/05/1999	02/01/2000	11/17/2000	02/05/2002	07/31/2002	08/08/2002	12/03/2002	03/13/2003	06/11/2003	08/28/2003	06/15/2004	10/05/2004	06/09/2005	11/02/2005	11/16/2006	05/31/2007	11/30/2007	06/19/2008	10/14/2008	06/24/2009	11/17/2009	05/11/2010
			Field Sample ID	M030D6X	M030D7X	M030D8X	M030D9X	M030E1X	M030E2X	M030E3X	MW-0031-A1	MW-0031-A2	M031A3X	M031A3Y	M031A4	M031A5	M031A6	M031A7	M031A9	M031B2	M031B2TY	M031B3Y	M031B4Y	M031B5	M031B6	M031B7A-061504	M031B8X	M031B9X	M031C1X	M031C3X	M031C4X	M031C5X	M031C6X	M031C7X	M031C8X	M031C9X	M031D1X-100511
			SDG	RFV25	RFX90	CS014	CS108	CS183	CS256	CS292	E20285	E25691	E39319	E39480	90656	93965	00399	B2465	270693	295373	296626	RFE43	RFE67	RFE76	RFE85	RFF14	RFF27	946781	965777	1014679	1040574	1067672	1098093	1114995	1150741	RFS20	RFS42
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8UJ	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8UJ	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8UJ	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.36U	1U	-	5.0U	0.5U	0.52U	0.52U	0.5U	2.00U	1.00U	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1.1U	1.4U	5.5U	-	12U	11U	10U	2U	10.0U	10.0U	11.1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.85U	0.95U	-	2.0U	2U	2.0U	2.0U	-	2.00U	1.00U	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1.5U	1.2U	5.5U	-	12U	11U	10U	10U	10.0U	10.0U	11.1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1.5U	1.2U	5.5U	-	12U	11U	10U	10U	10.0U	10.0U	11.1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	1U	0.73U	-	5.0U	10U	10U	10U	10U	50.00U	50.0U	50.0U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	12J	6U	6U	6U	6U	6U	6U	6U	6UJ	52	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.47U	0.8U	-	1.0U	1U	1.0U	1.0U	1U	1.00U	1.0U	2.0U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	0.49U	-	5.0U	5U	5.0U	5.0U	5U	2.00U	1.00U	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.4U	0.93U	-	4.0U	4U	4.0U	4.0U	4U	2.00U	1.00U	2.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8UJ	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1UJ	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.44U	0.88U	-	5.0U	5U	5.0U	5.0U	5U	1.00U	1.00U	2.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8UJ	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8UJ	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2J	2J	2U	2U	3J	2U	2U	2U	2U	2J	2U	2J	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.36U	0.47U	-	5.0U	5U	5.0U	5.0U	5U	2.00U	1.0U	2.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8UJ	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5J	0.7J	1J	0.5U	0.5U	0.8J	0.5U	0.5U	0.9J	0.8J	1J	0.5J	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	0.37U	0.78U	-	5.0U	5U	5.0U	5.0U	5U	2.00U	1.00U	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8UJ	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.36U	0.85U	-	5.0U	5U	5.0U	5.0U	5U	2.00U	1.0U	2.0U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7UJ	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8UJ	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1.3U	1.6U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.62U	1.2U	-	5.0U	5U	5.0U	5.0U	5U	2.00U	1.0U	2.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8UJ	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031R	MW-0031R	MW-0031R	MW-0031R	MW-0031R	MW-0031R	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032
			Sample Date	10/06/2010	06/01/2011	11/10/2011	02/14/2012	08/07/2012	04/25/2013	09/24/2013	06/05/2014	11/07/2014	02/13/2015	09/30/2015	04/08/1997	09/15/1997	09/11/1998	09/15/1998	02/22/1999	10/05/1999	02/02/2000	11/20/2000	03/29/2001	02/06/2002	08/01/2002	08/08/2002	12/03/2002	04/08/2003	06/11/2003	08/28/2003	10/05/2004	06/09/2005	11/03/2005	05/31/2007	05/31/2007	11/29/2007	07/01/2008	10/14/2008
			Field Sample ID	M031D2X	M031D3X	M031D4X	M031D5X	M031D6X	M031RA1X	M031RA2X	M031RA3X	M031RA4X	M031RA5X	M031RA6X	MW-0032-A1	MW-0032-A2	M032A3X	M032A3Y	M032A4	M032A5	M032A6	M032A7	M032A8	M032A9	M032B2	M032B2TY	M032B3Y	M032B4Y	M032B5	M032B6	M032B7X	M032B8X	M032B9X	M032C3X	M032C3X	M032C4X	M032C5X	M032C6X
			SDG	RFS69	RFT26	RFT85	RFU10	RFV25	RFZ13	CS014	CS109	CS183	CS201	CS292	E20285	E25691	E39319	E39480	90706	93965	00399	C2465	E88340	270891	295476	296626	RFE43	RFE70	RFE76	RFE85	RFF27	946781	965984	1014679	1040574	1067442	1098780	1114995
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	1.00U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.36U	1U	-	5.0U	0.52U	0.52U	0.52U	-	2.0U	2.00U	1.00U	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1.1U	1.4U	5.2U	-	14U	10U	10U	-	2.1U	11.4U	10.1U	10.0U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.85U	0.95U	-	2.0U	2.0U	2.0U	2.0U	-	2.0U	2.00U	-	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1.5U	1.2U	5.2U	-	14U	10U	10U	-	2.1U	11.4U	10.1U	10.0U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1.5U	1.2U	5.2U	-	14U	10U	10U	-	2.1U	11.4U	10.1U	10.0U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	1U	0.73U	-	5.0U	10U	10U	10U	-	5.0U	50.00U	50.0U	50.0U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	11J	6U	6U	-	-	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	6U	6J	6J	6U	7J	6U	6U	100	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1.3	0.8U	-	1.0U	1.0U	1.0U	1.0U	-	1.0U	1.00U	1.0U	2.0U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.49U	-	5.0U	5.0U	5.0U	5.0U	-	5.0U	2.00U	1.00U	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.4U	0.93U	-	4.0U	4.0U	4.0U	4.0U	-	2.0U	2.00U	1.00U	2.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.44U	0.88U	-	5.0U	5.0U	5.0U	5.0U	-	5.0U	1.00U	1.00U	2.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
Cyclohexane	ug/L	N	100	2U	4J	2U	3J	2U	2U	3J	2UJ	2U	2J	2U	-	-	-	-	-	-	-	-	-	-	-	-	6	2J	2U	6	4J	2U	2U	2U	2U	2U	10U	3J
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	1.4	0.47U	-	5.0U	5.0U	5.0U	5.0U	-	1.0U	2.00U	1.0U	2.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U
Methylcyclohexane	ug/L	N	100	1U	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	4J	1U	1U	4J	2J	1U	2J	1U	1U	2J	5U	3J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.37U	0.78U	-	5.0U	5.0U	5.0U	5.0U	-	5.0U	2.00U	1.00U	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	1.8	0.85U	-	5.0U	5.0U	5.0U	5.0U	-	1.0U	2.00U	1.0U	2.0U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	4U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1.3U	1.6U	-	-	-	-	-	-	1.0U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	8.3	1.8	-	5.0U	2	5.0U	5.0U	-	2.1	2.00U	1.0U	2.0U	4J	1J	0.8U	3J	1J	0.9J	1J	0.8U	0.8U	2J	13J	4J
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033
			Sample Date	07/01/2009	11/17/2009	05/11/2010	10/06/2010	06/01/2011	11/10/2011	03/09/2012	08/07/2012	03/15/2013	09/25/2013	06/05/2014	11/07/2014	02/13/2015	10/01/2015	04/08/1997	07/29/1997	09/16/1997	09/14/1998	02/24/1999	10/07/1999	06/06/2003	08/28/2003	03/10/2004	10/05/2004	06/10/2005	11/08/2005	11/21/2006	06/06/2007	11/29/2007	08/07/2008	10/17/2008	07/21/2009	11/18/2009	05/26/2010
			Field Sample ID	M032C7X	M032C8X	M032C9X-100511	M032D1X	M032D2X	M032D3X	M032D4X	M032D5X	M032D6X	M032D7X	M032D8X	M032D9X	M032E1X	M032E2X	MW-0033-A1	MW-0033-A2	MW-0033-A3	M033A4	M033A5	M033A6	M033A9	M033B1	M033B1A	M033B2X	M033B3X	M033B4X	M033B6X	M033B7X	M033B8X	M033B9X	M033C1X	M033C2X	M033C3X	D0526101-100526
			SDG	1151840	RFS20	RFS42	RFS69	RFT26	RFT85	RFU16	RFV25	RFY11	CS015	CS109	CS183	CS201	CS293	E20285	73337	E25731	E39389	90706	93965	RFE75	RFE85	RFE99	RFF27	947003	966572	1015254	1041430	1067442	1104403	1115719	1154382	RFS20	RFS44
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	8U	8U	4U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	8U	8U	4U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	8U	8U	4U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	2.0U	2U	2U	2U	2U	2U	10U	20U	20U	10U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1.0U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	2.0U	2U	2U	2U	2U	2U	10U	20U	20U	10U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.36U	5U	1U	5.0U	0.52U	0.52U	1.0U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1.1U	10U	1.4U	5.1U	14U	10U	1.0U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.85U	2U	0.95U	2.0U	2.0U	2.0U	1U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1.5U	10U	1.2U	5.1U	14U	10U	1.0U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1.5U	10U	1.2U	5.1U	14U	10U	1.0U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	11J	1U	10U	0.73U	5.0U	10U	10U	6J	10J	4J	11	8J	4J	15U	30U	30U	15U	3U	3U	4J	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	15U	30U	30U	15U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	15U	30U	30U	15U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	8J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	27	-	-	-	-	-	-	850	230	23	72	64	27	30U	60U	60U	30U	12J	23	28	9J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5	0.92	1U	0.8U	1.0U	1.0U	1.0U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	5U	5U	3U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	0.49U	5.0U	5.0U	5.0U	1U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.4U	4U	0.93U	4.0U	4.0U	4.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	8U	8U	4U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.44U	5U	0.88U	5.0U	5.0U	5.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	8U	8U	4U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	8U	8U	4U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	4J	3J	2U	4J	2J	3J	3J	4J	2U	2U	2UJ	3J	2J	66	-	-	-	-	-	-	2.0U	2U	2U	2U	2U	2U	10U	20U	20U	10U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	2.0U	2U	2U	2U	2U	2U	10U	20U	20U	10U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	2	0.36U	5U	0.47U	5.0U	5.0U	5.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	8U	8U	4U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	13	-	-	-	-	-	-	1.0U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	1.0U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2	-	-	-	-	-	-	2J	0.9J	0.5U	0.6J	0.8J	2J	3U	5U	5U	3U	0.8J	0.5U	0.5U	1J
Methylcyclohexane	ug/L	N	100	3J	3J	1J	3J	1U	1J	2J	3J	1U	1U	1U	2J	1U	53	-	-	-	-	-	-	1.0U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	10U	20U	20U	10U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.37U	5U	0.78U	5.0U	5.0U	5.0U	1U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	8U	8U	4U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	3	0.36U	5U	0.85U	5.0U	5.0U	5.0U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	4U	7U	7U	4U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	8U	8U	4U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	2.0U	2U	2U	2U	2U	2U	10U	20U	20U	10U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1.3U	-	1.6U	-	-	-	1U	1U	1U	1U	1U	1U	5U	10U	10U	5U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	4J	0.8U	2J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5J	0.5J	8	0.97	5U	1.2U	5.0U	5.0U	5.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	8U	8U	4U	0.8U	0.8U	0.8U	2J
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034
			Sample Date	05/26/2010	10/06/2010	05/26/2011	02/16/2012	02/16/2012	03/19/2013	06/05/2014	06/05/2014	02/13/2015	04/08/1997	09/16/1997	09/14/1998	02/22/1999	10/06/1999	02/03/2000	11/15/2000	04/02/2001	02/07/2002	08/01/2002	08/07/2002	10/28/2002	02/12/2003	08/27/2003	03/04/2004	09/30/2004	06/14/2005	11/08/2005	11/28/2006	06/06/2007	11/16/2007	08/07/2008	10/17/2008	07/07/2009	11/18/2009
			Field Sample ID	M033C4X-100526	M033C5X	M033C6X	D0216121	M033C7X	M033C8X	D0605141	M033D2X	M033D3X	MW-0034-A1	MW-0034-A2	M034A3	M034A4	M034A5	M034A6	M034A7	M034A8	M034A9	M034B2	M034B2T	M034B4Y	M034B5Y	M034B4	M034B8	M034B9X	M034C1X	M034C2X	M034C4X	M034C5X	M034C6X	M034C7X	M034C8X	M034C9X	M034D1X
			SDG	RFS44	RFS69	RFT25	RFU11	RFU11	RFY13	CS109	CS109	CS201	E20285	E25691	E39389	90706	93965	00399	B2465	E88536	271027	295476	296434	RFE35	RFE64	RFE85	RFE98	RFF27	947365	966572	1015744	1041430	1066019	1104403	1115719	1152446	RFS20
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	1.00U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.36U	1U	5.0U	0.52U	0.52U	0.52U	1U	2.0U	2.00U	1.00U	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1.1U	1.4U	5.0U	14U	11U	10U	4U	2.0U	10.0U	10.0U	10.0U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.85U	0.95U	2.0U	2.0U	2.0U	2.0U	-	2.0U	2.00U	-	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1.5U	1.2U	5.0U	14U	11U	10U	10U	2.0U	10.0U	10.0U	10.0U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1.5U	1.2U	5.0U	14U	11U	10U	10U	2.0U	10.0U	10.0U	10.0U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3J	3U	1U	0.73U	5.0U	10U	10U	10U	20U	5.0U	50.00U	50.0U	50.0U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15U	3U	3U	3U
Acetone	ug/L	N	6000	11J	6U	9J	6U	6U	9J	32	38	19J	-	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	30U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.47U	0.8U	1.0U	1.0U	1.0U	1.0U	0.6	1.0U	1.00U	1.0U	2.0U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.49U	5.0U	5.0U	5.0U	5.0U	8	5.0U	2.00U	1.00U	0.600	1U	1U	1U	1U	1U	1U	7	1U	1U	1U	5U	1U	11	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.4U	0.93U	4.0U	4.0U	4.0U	4.0U	3	2.0U	2.00U	1.00U	2.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.44U	0.88U	5.0U	5.0U	5.0U	5.0U	10U	5.0U	1.00U	1.00U	2.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2UJ	2UJ	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.36U	0.47U	5.0U	5.0U	5.0U	5.0U	10U	1.0U	2.00U	1.0U	2.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	1J	0.6J	0.9J	0.9J	0.9J	0.9J	0.6J	0.5J	0.8J	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.37U	0.78U	5.0U	5.0U	5.0U	5.0U	10U	5.0U	2.00U	1.00U	2.00U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.8J	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.36U	0.85U	5.0U	5.0U	5.0U	5.0U	2	1.0U	2.00U	1.0U	2.0U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	4U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1.3U	1.6U	-	-	-	-	-	1.0U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U
Xylene (total)	ug/L	N	1000	2J	0.8U	1J	0.9J	1J	0.9J	0.9J	0.8J	1	0.62U	1.2U	5.0U	5.0U	5.0U	5.0U	10U	5.0U	2.00U	1.0U	2.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035
			Sample Date	05/26/2010	10/06/2010	05/26/2011	11/10/2011	02/16/2012	08/07/2012	03/11/2013	09/25/2013	06/24/2014	11/07/2014	02/19/2015	10/01/2015	04/08/1997	09/16/1997	09/15/1998	02/24/1999	10/06/1999	10/06/1999	02/10/2000	11/14/2000	11/14/2000	11/14/2000	11/14/2000	03/07/2002	03/07/2002	03/07/2002	03/07/2002	08/02/2002	08/14/2002	09/25/2002	09/25/2002	10/01/2002	03/13/2003	09/24/2003
			Field Sample ID	M034D2X-100526	M034D3X	M034D4X	M034D5X	M034D6X	M034D7X	M034D8X	M034D9X	M034E1X	M034E2X	M034E3X	M034E4X	MW-0035-A1	MW-0035-A2	M035A3	M035A4	M035A5	M035A5	M035A6	M035A7	M035A7D	M035A7M	M035A7S	M035A9	M035A9D	M035A9M	M035A9S	M035B2	M035B2TY	M035PS3	M035PSL	M035B3Y	M035B4Y	M035B5
			SDG	RFS44	RFS69	RFT25	RFT85	RFU11	RFV25	RFX98	CS015	CS116	CS183	CS202	CS293	E20312	E25691	E39480	90706	93965		00473	B2465	B2465	B2465	B2465	274943	274943	274943	274943	295754	297195	RFE25	RFE25	RFE24	RFE67	RFE87
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.36U	1U	5.0U	0.52U	0.52U	0.5	0.52U	0.5U	0.5U	0.5U	0.5U	2.00U	2.00U	2.00U	2.00U	2.00U	2.00U	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1.1U	1.4U	5.1U	14U	11U	2	10U	0.3	2U	2U	2U	10.0U	10.0U	10.0U	10.0U	10.0U	10.0U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.85U	0.95U	2.0U	2.0U	2.0U	-	2.0U	-	-	-	-	2.00U	2.00U	2.00U	2.00U	2.00U	2.00U	-	-	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1.5U	1.2U	5.1U	14U	11U	-	10U	10U	10U	10U	10U	10.0U	10.0U	10.0U	10.0U	10.0U	10.0U	-	-	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1.5U	1.2U	5.1U	14U	11U	-	10U	10U	10U	10U	10U	10.0U	10.0U	10.0U	10.0U	10.0U	10.0U	-	-	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	1U	0.73U	5.0U	10U	10U	10	10U	10U	10U	10U	10U	50.00U	50.00U	50.00U	50.00U	50.0U	50.0U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2.5	0.8U	1.0U	1.0U	1.0U	1	1.0U	1U	1U	1U	1U	1.00U	1.00U	1.00U	1.00U	0.800	36.2	90	8	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.49U	5.0U	5.0U	5.0U	5	5.0U	5U	5U	5U	5U	2.00U	2.00U	2.00U	2.00U	2.00U	2.00U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.4U	0.93U	4.0U	4.0U	4.0U	5	4.0U	4U	4U	4U	4U	2.00U	2.00U	2.00U	2.00U	2.00U	2.00U	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.44U	0.88U	5.0U	5.0U	5.0U	5	5.0U	5U	5U	5U	5U	1.00U	1.00U	1.00U	1.00U	2.00U	2.00U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	5J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.36U	0.47U	5.0U	5.0U	5.0U	5	5.0U	5U	5U	5U	5U	2.00U	2.00U	2.00U	2.00U	2.0U	2.0U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.6J	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	4J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.37U	0.78U	5.0U	5.0U	5.0U	5	5.0U	5U	5U	5U	5U	2.00U	2.00U	2.00U	2.00U	2.00U	2.00U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.36U	0.85U	5.0U	5.0U	5.0U	5	5.0U	5U	5U	5U	5U	2.00U	2.00U	2.00U	2.00U	2.0U	2.0U	1J	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	1.3U	1.6U	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5J	1.1	1.2U	5.0U	5.0U	5.0U	5	5.0U	5U	5U	5U	5U	2.00U	2.00U	2.00U	2.00U	2.0U	2.0U	0.8J	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039
			Sample Date	05/26/2004	05/26/2004	08/09/2004	03/10/2005	08/11/2005	03/07/2006	09/01/2006	03/13/2007	09/21/2007	02/29/2008	02/18/2009	03/11/2010	04/26/2011	06/07/2012	05/21/2013	06/25/2014	02/23/2018	10/22/2002	02/14/2003	09/18/2003	09/24/2004	05/26/2005	11/01/2005	05/25/2006	11/17/2006	06/08/2007	08/20/2008	07/21/2009	06/15/2010	08/02/2011	03/27/2012	04/11/2013	09/05/2014	04/16/2015
			Field Sample ID	040526MW-0035	040526MW-0035D	MW035B6	M035B7	M035B8	M035B9	M035C1	M035C2	M035C3	M035C4X	M035C5X	M035C6X	M035C7X	M035C8X	M035C9X	M035D1X	M035D5	M039A3Y	M039A4Y	M039A5	M039A6	M039A7	M039A8X	M039A9	M039B1	M039B2	M039B3X	M039B4X	M039B5X-100615	M039B6X	M039B7X	M039B8X	M039B9X	M0039C1X
			SDG	PHS01	PHS01	RFF18	RFF43	955073	980623	1004086	1029141	1057469	1079627	1132740	RFS33	RFT13	RFU80	RFZ61	CS117	CS652	RFE34	RFE64	RFE86	RFF25	RFF56	965566	991108	1014876	1041869	1106372	1154382	RFS47	RFT49	RFU30	RFY73	CS152	CS221
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	5	0.5U	47	0.5U	2J	0.5U	21	0.5U	2J	0.5U	0.5U	0.5U	0.6J	2	1	12	29	2J	3J	4J	15	0.5U	5J	6	9	10	5J	6	7	0.5U	7	1
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	6	2U	2U	2U	11	2U	-	-	-	-	-	-	-	8	13	5J	5	6	7	6	7	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	8	13	0.8U	1J	0.8U	5	0.8U	2J	2J	3J	3J	1J	0.8U	0.8U	0.8U	0.7J	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	3J	4J	1U	1J	1U	2J	1U	2J	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	1J	0.5U	2J	0.5U	0.5U	0.5U	2J	0.5U	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	2J	1U	1U	1U	12	1U	-	-	-	-	-	-	-	2J	4J	2J	2J	2J	3J	2J	3J	-	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.9J	2J	0.7U	0.7U	0.7U	1J	0.7U	0.7U	0.7U	0.8J	0.9J	0.7U	0.7U	0.7U	0.7U	0.8J	0.5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	18	30	4J	6	7	15	2J	8	10	12	15	7	6	6	0.8U	6	0.5U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0058	MW-0058
			Sample Date	10/30/2002	09/28/2004	06/07/2005	11/02/2005	05/31/2006	12/01/2006	06/05/2007	07/31/2008	05/18/2009	06/08/2010	08/18/2011	03/13/2012	05/23/2012	05/24/2012	07/25/2012	07/26/2012	11/20/2012	11/20/2012	02/20/2013	06/12/2013	09/09/2013	09/09/2013	11/06/2013	03/05/2014	08/05/2014	08/05/2014	10/23/2014	03/03/2015	05/29/2015	09/16/2015	11/13/2015	10/09/2017	01/22/2018	10/07/2010	03/29/2012
			Field Sample ID	M057A1	M057A2X	M057A3X	M057A4X	M057A5X	M057A6X	M057A7X	M057A8X	M057A9X	M057B1X-100608	M057B2X	M057B3X	M057B4	M057B4X	M057B5	M057B5X	D1120121	M057B6	M057B7	M057B8	D0909131	M057B9	M057C1	M057C2	D0805141	M057C4	M057C5	M057C6	M057C7	M057C8	M057C9	M057D8	M057D9	M058A1	M058A2X
			SDG	LNA05	RFF26	RFF58	965777	991597	1016343	1041205	1103309	1145283	RFS46	RFT60	RFU17	RFU72	RFU73	RFV16	RFV17	RFX10	RFX10	RFX68	RFB02	CS006	CS006	CS040	CS069	CS136	CS136	CS176	CS205	CS244	CS285	CS314	CS613	CS634	RFS71	RFU34
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	FD	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	-	-	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	-	-	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	-	-	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	18J	6U	6U	-	-	6U	-	-	6U	6U	6U	6U	6U	47	13J	6U	8J	7J	6U	6U	6U	6U	6U	54	6U	6U	6U	21	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	74	4J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	25	4J
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	36	6
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	3J	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5J	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	0.5U	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2J	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	22	4J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	38	8
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	150	28
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-0058	MW-0058	MW-0058	MW-0058	MW-0058	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0061	MW-0061	MW-0061	MW-0061	MW-0061	MW-0062	MW-0062	MW-0062	MW-0062	MW-0062	MW-0063	MW-0063	MW-0063	MW-0065	MW-0065	MW-0065	MW-0065
			Sample Date	03/27/2013	02/07/2014	11/20/2017	11/20/2017	02/16/2018	06/01/2006	12/12/2006	06/12/2007	08/01/2008	06/10/2009	06/11/2009	06/22/2010	07/28/2011	03/29/2012	03/27/2013	02/11/2014	11/21/2017	02/14/2018	06/19/2008	10/15/2008	04/01/2009	11/21/2017	02/14/2018	06/19/2008	10/15/2008	04/01/2009	11/22/2017	02/16/2018	10/15/2008	11/20/2017	02/09/2018	10/29/2002	06/03/2005	11/03/2005	05/31/2006
			Field Sample ID	M058A3X	M058A4X	D1120179	M058A7X	M058A8X	M060A1X	M060A2X	M060A3X	M060A4X	M060A5	M060A5X	M060A6X-100622	M060A7X	M060A8X	M060A9X	M060B1X	M060B4X	M060B5X	M061A1	M061A2X	M061A3	M061A4X	M061A5X	M062A1	M062A2X	M062A3	M062A4X	M062A5X	M063A1X	M063A2X	M063A3X	M065A1	M065A3X	M065A4X	M065A5X
			SDG	RFY36	CS060	CQ897	CQ897	CQ983	991777	1017858	1042260	1103488	1137656	1148815	RFS48	RFT48	RFU34	RFY36	CS061	CQ899	CQ976	1097627	1115231	1138850	CQ899	CQ976	1097627	1115231	1138850	CQ900	CQ979	1115231	CQ897	CQ970	LNA05	RFF58	965984	991597
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	5U	0.5U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	5U	0.5U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	0.5U	0.5U	0.5U	1U	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	5U	0.5U	1U	5U	0.5U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	5U	0.5U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	20U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	0.5U	0.5U	0.5U	1U	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	5U	0.5U	1U	5U	0.5U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	10U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	20U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	0.5U	0.5U	0.5U	1U	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	5U	0.5U	1U	5U	0.5U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	10U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	0.5U	0.5U	0.5U	1U	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	5U	0.5U	1U	5U	0.5U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	0.5U	0.5U	0.5U	1U	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	5U	0.5U	1U	5U	0.5U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	10U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	10U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	11	7J	-	-	3U	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3J	9J	8J	30U	5J	16	30U	35	3U	10	4J	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	-	-	3U	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	30	3U	30U	3U	3U	30U	6J	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	-	-	3U	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U	3U	3U	30U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	44	27	-	-	6U	-	-	-	-	-	-	6U	6U	6U	6U	7J	7J	6U	13J	19J	25	60U	16J	38	60U	110	10J	150	21	8J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.6J	0.5U	0.6J	0.6J	0.5U	69	61	48	31	8	19	46	53	10	3J	2J	0.5U	0.5U	37	42	0.5U	0.5U	0.5U	370	370	190	71	130	75	38	150	6	18	0.9J	5J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	0.5U	0.5U	0.5U	1U	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	5U	0.5U	1U	5U	0.5U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	0.5U	0.5U	0.5U	1U	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	5U	0.5U	1U	5U	0.5U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	0.5U	0.5U	0.5U	1U	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	5U	0.5U	1U	5U	0.5U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	10U	1U	1U	1U	1U	2J
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	0.5U	0.5U	0.5U	1U	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	5U	0.5U	1U	5U	0.5U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	5U	0.5U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	0.5U	0.5U	0.5U	1U	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	5U	0.5U	1U	5U	0.5U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	5U	0.5U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	0.5U	0.5U	0.5U	1U	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	5U	0.5U	2J	5U	0.5U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	5U	0.5U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	0.5U	0.5U	0.5U	1U	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	5U	0.5U	1U	5U	0.5U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	3J	3J	2U	43	36	-	-	16	-	-	-	-	-	-	7	4J	22	28	34	7	5J	58	89	140	20U	100	66	41J	58	2U	3J	2U	3J
Dibromochloromethane	ug/L	N	1	1U	1U	0.5U	0.5U	0.5U	1U	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	5U	0.5U	1U	5U	0.5U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	0.5U	0.5U	0.5U	2U	2U	-	-	2U	-	-	-	-	-	-	0.5U	0.5U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	5U	0.5U	2U	5U	0.5U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	2J	0.8U	10	10	0.5U	6	6	5	1J	0.8U	0.8U	0.8U	1J	0.8U	0.8J	0.8U	0.5U	0.5U	6	2J	2J	0.5U	0.5U	160	230	270	91	29	110	7J	6	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	2J	1J	1U	11	7	-	-	2J	-	-	-	-	-	-	2J	1U	6	10	8	6	5J	10	18	20	17J	22	19	21J	20	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	10U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	0.5U	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	3J	2J	2J	2J	1U	30	26	-	-	12	-	-	-	-	-	-	4J	2J	13	19	32	7	6	39	68	100	15J	90	67	48J	37	1U	1J	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	0.5U	0.5U	0.5U	2U	2U	-	-	2U	-	-	-	-	-	-	0.5U	0.5U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	5U	0.5U	2U	5U	0.5U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	10U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	5U	0.5U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	2J	0.7U	3	3	0.5U	5J	4J	3J	2J	0.8J	1J	2J	3J	1J	0.7J	0.7U	0.5J	0.5U	2J	2J	0.7U	0.7J	0.5U	9	8	4J	5U	9	5J	8J	8	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	5U	0.5U	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	0.5U	0.5U	0.5U	1U	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	5U	0.5U	1U	5U	0.5U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	0.5U	0.5U	0.5U	1U	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	5U	0.5U	1U	5U	0.5U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	0.5U	0.5U	0.5U	2U	2U	-	-	2U	-	-	-	-	-	-	0.5U	0.5U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	5U	0.5U	2U	5U	0.5U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	0.5U	0.5U	0.5U	1U	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	5U	0.5U	1U	5U	0.5U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	9	4J	62	61	2	27	26	25	19	7	9	13	22	6	5	2J	1	0.5U	12	10	4J	0.5U	0.5U	120	320	210	130	56	180	42	46	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0071	MW-0071	MW-0071	MW-0071	MW-0071	MW-0071	MW-0071	MW-0071	MW-0071	MW-0071R	MW-0071R	MW-0072
			Sample Date	11/14/2006	06/05/2007	08/01/2008	06/10/2009	06/11/2009	06/22/2010	07/28/2011	03/29/2012	03/28/2013	02/11/2014	11/21/2017	02/12/2018	06/27/2006	12/12/2006	06/05/2007	08/22/2008	06/11/2009	06/22/2010	07/28/2011	03/29/2012	04/19/2013	08/29/2014	04/15/2015	06/15/2006	12/12/2006	06/15/2007	08/14/2008	07/09/2009	07/01/2010	06/30/2011	04/24/2012	09/03/2014	11/06/2015	11/18/2005
			Field Sample ID	M065A6X	M065A7X	M065A8X	M065A9	M065A9X	M065B1X-100622	M065B2X	M065B3X	M065B4X	M065B5X	M065B8X	M065B9X	M070A1X	M070A2X	M070A3X	M070A4X	M070A5X	M070A6X-100622	M070A7X	M070A8X	M070A9X	M070B1X	M070B2X	M071A1X	M071A2X	M071A3X	M071A4X	M071A5X	M071A6X-100701	M071A7X	M071A8X	M071RA9X	M071RB1X	M072A2X
			SDG	1014239	1041205	1103488	1137656	1148815	RFS48	RFT48	RFU34	RFY40	CS061	CQ899	CQ971	995245	1017858	1041205	1106759	1148815	RFS48	RFT48	RFU34	RFY97	CS149	CS220	993798	1017858	1042931	1105517	1152857	RFS51	RFT38	RFU46	CS150	CS310	968194
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	-	-	0.8U	-	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	-	-	0.8U	-	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	-	-	0.8U	-	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	-	2U	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-	-	2U
1,1-Dichloroethane	ug/L	N	50	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	-	1U	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	-	2U	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-	-	2U
1,2-Dibromoethane	ug/L	N	0	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	-	1U	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
1,2-Dichloropropane	ug/L	N	1	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	-	1U	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	-	-	1U	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	-	3U	-	-	-	-	-	-	3U	3U	3J	3U	-	-	-	-	-	-	-	-	-	3U	8J	-	-	-	-	-	-	-	-	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	-	-	3U	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	-	-	-	-	-	-	-	-	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	-	-	3U	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	-	-	-	-	-	-	-	-	3U
Acetone	ug/L	N	6000	16J	-	-	6U	-	-	-	-	-	-	6U	6U	13J	8J	-	-	-	-	-	-	-	-	-	9J	11J	-	-	-	-	-	-	-	-	12J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.9J	2J	10	4J	3J	0.9J	1J	0.5U	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	13	96	27	41	23J	24J	20	32	53	4	2J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
Bromoform	ug/L	N	4	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	-	-	1U	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
Chlorobenzene	ug/L	N	50	0.8U	-	-	0.8U	-	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
Chloroform	ug/L	N	70	0.8U	-	-	0.8U	-	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	-	-	0.8U	-	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
Cyclohexane	ug/L	N	100	2J	-	-	2U	-	-	-	-	-	-	2U	2U	5J	4J	-	-	-	-	-	-	-	-	-	91	210	-	-	-	-	-	-	-	-	12
Dibromochloromethane	ug/L	N	1	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	-	-	2U	-	-	-	-	-	-	0.5U	0.5U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-	-	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	4J	39	18	11	4U	8U	7	14	13	4	3J
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	-	-	1U	-	-	-	-	-	-	1U	1U	4J	4J	-	-	-	-	-	-	-	-	-	3J	21	-	-	-	-	-	-	-	-	11
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	-	1U	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	-	0.5U	-	-	-	-	-	-	0.5U	0.5U	0.8J	0.5U	-	-	-	-	-	-	-	-	-	0.5U	2J	-	-	-	-	-	-	-	-	2J
Methylcyclohexane	ug/L	N	100	1U	-	-	1U	-	-	-	-	-	-	1U	1U	3J	3J	-	-	-	-	-	-	-	-	-	63	140	-	-	-	-	-	-	-	-	12
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	-	2U	-	-	-	-	-	-	0.5U	0.5U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-	-	2U
Styrene	ug/L	N	100	1U	-	-	1U	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	-	-	0.8U	-	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	1J	1J	0.8J	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	6	32	12	24	13J	19J	17	26	10	2	9
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	-	-	0.8U	-	-	-	-	-	-	0.5U	0.5U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	-	-	2U	-	-	-	-	-	-	0.5U	0.5U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	-	-	1U	-	-	-	-	-	-	0.5U	0.5U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	1	0.5U	0.9J	1J	0.9J	1J	0.9J	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	91	170	120	130	94	100	56	120	40	9	190
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114
			Sample Date	12/08/2006	06/12/2007	07/31/2008	07/16/2009	06/18/2010	07/28/2011	03/28/2012	04/19/2013	08/29/2014	04/17/2015	10/24/2002	02/27/2003	09/04/2003	09/23/2004	05/27/2005	10/27/2005	06/09/2006	11/09/2006	05/23/2007	08/19/2008	06/03/2009	04/29/2010	06/28/2011	03/22/2012	04/04/2013	09/04/2014	09/03/2015	01/30/2018	10/17/2002	02/10/2003	09/10/2003	05/18/2004	09/22/2004	05/25/2005	10/26/2005
			Field Sample ID	M072A3X	M072A4X	M072A5X	M072A6X	M072A7X-100618	M072A8X	M072A9X	M072B1X	M072B2X	M072B3X	M112A1X	M112A2Y	M112A3	M112A4	M112A5	M112A6X	M112A7	M112A8	M112A9	M112B1X	M112B2X	M112B3X	M112B4X	M112B5X	M112B6X	M112B7X	M112B8X	M112C8X	M114A1X	M114A2Y	M114A3	M114A4	M114A5	M114A6	M114A7X
			SDG	1017481	1042260	1103309	1153802	RFS47	RFT48	RFU32	RFY97	CS149	CS222	RFE35	RFE65	RFE85	RFF25	RFF56	965062	993031	1013690	1039652	1106131	1147599	RFS40	RFT37	RFU28	RFY53	CS151	CS282	CS639	RFE33	RFE64	RFE86	RFF11	RFF25	RFF55	964862
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	1J	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	20U	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	10U	-	-	-	-	-	-	-	-	-	8	5J	7	11	2J	7	4J	5	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	20U	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	30U	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	30U	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	30U	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	60U	-	-	-	-	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	5U	2J	0.9J	0.6J	0.5U	1J	0.9J	0.9J	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	20U	-	-	-	-	-	-	-	-	-	5J	2J	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	20U	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	4.0J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	1.0U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	8U	2J	2J	0.8U	0.8U	1J	0.8U	1J	0.5U	0.7J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	19000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	5U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	10U	-	-	-	-	-	-	-	-	-	2J	1U	3J	9	8	2J	1J	2J	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	20U	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	7U	7	5J	2J	1J	6	2J	5	3	2	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	20U	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	10U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	130	120	170	55	99	110	29	49	75	44	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115
			Sample Date	05/24/2006	11/09/2006	06/01/2007	07/30/2008	05/08/2009	04/29/2010	07/20/2011	03/16/2012	05/14/2012	05/15/2012	07/24/2012	07/25/2012	11/19/2012	02/19/2013	06/10/2013	09/03/2013	11/04/2013	03/05/2014	05/19/2014	08/04/2014	10/22/2014	03/24/2015	05/27/2015	09/14/2015	11/13/2015	10/09/2017	01/23/2018	10/22/2002	02/26/2003	09/09/2003	07/31/2008	11/06/2008	11/06/2008	05/08/2009	11/06/2009	04/29/2010
			Field Sample ID	M114A8	M114A9	M114B1	M114B2X	M114B3X	M114B4X	M114B5X	M114B6X	M114B7	M114B7X	M114B8	M114B8X	M114B9	M114C1	M114C2	M114C3	M114C4	M114C5	M114C6	M114C7	M114C8	M114C9	M114D1	M114D2	M114D3	M114E2	M114F3	M115A1Y	M115A2Y	M115A3	M115A4X	D1106081	M115A5X	M115A6X	M115A7X	M115A8X
			SDG	990907	1013690	1040795	1103086	1144089	RFS40	RFT45	RFU23	RFU60	RFU62	RFV15	RFV16	RFX09	RFX66	RFZ90	CS004	CS038	CS069	CS100	CS135	CS174	CS212	CS242	CS283	CS314	CS613	CS635	RFE34	RFE65	RFE86	1103309	1118813	1118813	1144089	1170013	RFS40
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6UJ	6U	6U	6UJ	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	6	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	24	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-116	MW-116	MW-116	MW-116	MW-116R	MW-116R	MW-116R	MW-116R	MW-116R	MW-116R	MW-116R	MW-116R	MW-117	MW-117
			Sample Date	07/20/2011	03/16/2012	05/14/2012	05/15/2012	07/24/2012	07/25/2012	11/19/2012	02/19/2013	06/12/2013	09/03/2013	11/04/2013	03/05/2014	05/19/2014	08/04/2014	10/22/2014	03/02/2015	05/27/2015	09/14/2015	11/13/2015	10/09/2017	01/23/2018	06/01/2006	12/05/2006	06/01/2007	12/19/2007	06/26/2008	11/06/2008	07/24/2009	11/12/2009	05/21/2010	10/08/2010	06/16/2011	04/24/2012	11/22/2002	02/27/2003
			Field Sample ID	M115A9X	M115B1X	M115B2	M115B2X	M115B3	M115B3X	M115B4	M115B5	M115B6	M115B7	M115B8	M115B9	M115C1	M115C2	M115C3	M115C4	M115C5	M115C6	M115C7	M115D6	M115D7	M116A1X	M116A2X	M116A3X	M116A4X	M116RA5X	M116RA6X	M116RA7X	M116RA8X	M116RA9X-100521	M116RB1X	M116RB2X	M116RB3X	M117A1X	M117A2Y
			SDG	RFT45	RFU23	RFU60	RFU62	RFV15	RFV16	RFX09	RFX66	RFB02	CS004	CS038	CS069	CS100	CS135	CS174	CS204	CS242	CS283	CS314	CS613	CS635	991777	1016740	1040795	1070579	1098093	1118813	1154932	1170880	RFS43	RFS72	RFT33	RFU46	RFE40	RFE65
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	16U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	16U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	16U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	40U	2U
1,1-Dichloroethane	ug/L	N	50	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	40U	2U
1,2-Dibromoethane	ug/L	N	0	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
1,2-Dichloropropane	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3UJ	3U	3U	3U	4J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	73J	44
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	60U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	60U	8J
Acetone	ug/L	N	6000	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6UJ	6U	6U	6U	19J	6U	6J	8J	6U	6U	6U	6U	6U	6U	6U	6U	150J	120
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	230	120	200	94	39	59	27	38	93	28	63	32	1900	1100
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
Bromoform	ug/L	N	4	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
Chlorobenzene	ug/L	N	50	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	16U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
Chloroform	ug/L	N	70	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	16U	1J
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	16U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
Cyclohexane	ug/L	N	100	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	17	15	14	10	6	5	3J	4J	11	7	6	9	41J	78
Dibromochloromethane	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	40U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	41	29	18	9	6	7	5J	6	7	8	11	6	110	130
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	6	6	5J	3J	2J	2J	1J	2J	5J	2J	4J	3J	20U	19
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	20U	1U
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	240	220
Methylcyclohexane	ug/L	N	100	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	9	10	8	5	4J	3J	2J	3J	4J	4J	3J	8	33J	53
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	40U	2U
Styrene	ug/L	N	100	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	16U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	39	22	35	20	9	14	9	17	33	20	23	6	290	270
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	16U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	40U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	220	150	180	140	60	95	39	72	110	110	89	36	520	570
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118
			Sample Date	09/12/2003	03/02/2004	10/06/2004	06/08/2005	11/08/2005	06/01/2006	11/21/2006	06/07/2007	08/08/2008	05/13/2009	06/08/2011	03/07/2012	03/26/2013	03/27/2013	05/28/2014	08/07/2015	11/22/2002	03/28/2003	09/17/2003	03/11/2004	10/06/2004	06/08/2005	11/15/2005	06/01/2006	11/21/2006	06/07/2007	08/08/2008	07/10/2009	07/01/2010	06/30/2011	02/21/2012	08/13/2013	10/01/2013	08/27/2014	10/23/2015
			Field Sample ID	M117A3	M117A4A	M117A5X	M117A6X	M117A7X	M117A8X	M117A9X	M117B1X	M117B2X	M117B3X	M117B4X	M117B5X	D0327131	M117B6X	M117B7X	M117B8X	M118A1Y	M118A2X	M118A3	M118A4	M118A5X	M118A6X	M118A7X	M118A8X	M118A9X	M118B1X	M118B2X	M118B3X	M118B4X-100701	M118B5X	M118B6X	M118B7X	M118B8X	M118B9X	M118C1X
			SDG	RFE86	RFE98	RFF28	946780	966572	991777	1015254	1041628	1104631	1144692	RFT30	RFU15	RFY36	RFY36	CS105	CS270	RFE40	RFE68	RFE86	RFE99	RFF28	946780	967531	991777	1015254	1041628	1104631	1153027	RFS51	RFT38	RFU12	RFB88	CS019	CS147	CS302
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	40U	0.8U	16U	16U	8U	8U	16U	-	2U	8U	2U	20U	0.8U	0.8U	1U	5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	40U	0.8U	16U	16U	8U	8U	16U	-	2U	8U	2U	20U	0.8U	0.8U	1U	5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	40U	0.8U	16U	16U	8U	8U	16U	-	2U	8U	2U	20U	0.8U	0.8U	1U	5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	4J	0.8U	0.8U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	100U	2U	40U	40U	20U	20U	40U	-	4U	20U	4U	50U	2UJ	2UJ	4U	20UJ	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	2U	10UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	100U	2U	40U	40U	20U	20U	40U	-	4U	20U	4U	50U	2U	2U	4U	20UJ	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	2U	10UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	2U	10UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	2U	10UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	150U	31	60U	60U	30U	30U	60U	-	6J	30U	6U	75U	4J	4J	6U	30UJ	3J	3U	3U	3U	4J	6J	3U	3U	15U	3J	4J	3J	4J	3U	3U	3U	3U	4J	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	150U	7J	60U	60U	30U	30U	60U	-	6U	30U	6U	75U	3U	3U	6U	30UJ	3U	3U	3U	3U	3U	3U	3U	3U	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ
4-Methyl-2-pentanone	ug/L	N	100	150U	4J	60U	60U	30U	30U	60U	-	6U	30U	6U	75U	3U	3U	6U	30UJ	3U	3U	3U	3U	3U	3U	3U	3U	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ
Acetone	ug/L	N	6000	300U	110	250J	120U	74J	60U	120U	-	17J	60U	12U	150U	15J	17J	12U	60UJ	6U	6U	6U	6U	13J	25	6U	8J	30U	14J	12J	13J	15J	17J	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	850	730	1600	700	1300	1700	1700	840	1200	560	2100	1600	1800	1900	2200	1900J	15	15	61	21	4J	23	5J	42	3U	22	4J	23	6	56	10	7	3J	1	1
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U
Bromoform	ug/L	N	4	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	50U	1J	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1UJ	1UJ	2U	10UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	40U	0.8U	16U	16U	8U	8U	16U	-	2U	8U	2U	20U	0.8U	0.8U	1U	5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ
Chloroform	ug/L	N	70	40U	0.8U	16U	16U	8U	8U	16U	-	2U	8U	2U	20U	0.8U	0.8U	1U	5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	40U	0.8U	16U	16U	8U	8U	16U	-	2U	8U	2U	20U	0.8U	0.8U	1U	5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U
Cyclohexane	ug/L	N	100	100U	47	40J	40U	20U	35J	40U	-	29	26J	40	50U	44	52	36	33J	180	250	150	320	260	260	230	250	190	240	210	270	240	250	280	24	16	6J	12
Dibromochloromethane	ug/L	N	1	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	100U	2U	40U	40U	20U	20U	40U	-	4U	20U	4U	50U	2U	2U	1U	5UJ	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	40U	90	110	84J	56	100	73J	130	99	180	210	160	230	230	200	84J	1J	16	4J	4J	0.8U	6	0.8U	12	4U	3J	0.8U	2J	0.8U	8	0.8U	1J	0.8U	0.5U	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	50U	10	20U	20U	10U	12J	20U	-	11	11J	14	25U	18	18	16	12J	15	24	20	24	21	19	15	25	5U	24	18	21	19	12	21	22	16	17	15
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	2U	10UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	170J	130	190	100	140	160	160	-	99	36J	150	71J	110	120	120	84J	0.6J	1J	1J	0.8J	0.6J	0.8J	1J	0.6J	3U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	50U	38	24J	20U	10U	18J	20U	-	17	16J	17	25U	23	25	16	14J	50	96	51	160	95	110	82	110	81	120	84	89	90	110	140	2J	1U	1U	2J
Methylene chloride (Dichloromethane)	ug/L	N	3	100U	2U	40U	40U	20U	20U	40U	-	4U	20U	4U	50U	2U	2U	4U	20UJ	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	2U	10UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	40U	0.8U	16U	16U	8U	8U	16U	-	2U	8U	2U	20U	0.8U	0.8U	1U	5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
Toluene	ug/L	N	600	92J	280	340	330	160	310	230	280	470	820	810	700	540	550	340	65J	7	19	10	14	6	20	5J	23	4U	13	5	15	7	17	7	1J	0.8J	0.7J	1J
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	40U	0.8U	16U	16U	8U	8U	16U	-	2U	8U	2U	20U	0.8U	0.8U	1U	5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	100U	2U	40U	40U	20U	20U	40U	-	4U	20U	4U	50U	2U	2U	1U	5UJ	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	50U	1U	20U	20U	10U	10U	20U	-	2U	10U	2U	25U	1U	1U	1U	5UJ	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	170J	450	560	440	260	480	330	590	470	930	820	690	840	860	770	500J	26	100	56	43	20	160	11	160	12J	65	25	93	35	200	20	20	6	2	3
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-118	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120
			Sample Date	02/02/2018	10/19/1995	01/03/1996	02/23/1996	04/18/1996	10/10/2002	02/05/2003	11/27/2002	02/26/2003	10/01/2003	05/20/2004	09/24/2004	06/03/2005	11/04/2005	06/01/2006	12/05/2006	06/05/2007	08/13/2008	07/01/2009	06/08/2010	06/16/2011	03/14/2012	05/29/2012	05/30/2012	07/31/2012	08/01/2012	09/06/2013	11/11/2013	03/06/2014	05/21/2014	08/06/2014	10/23/2014	03/23/2015	06/01/2015
			Field Sample ID	MW118D9X	MW-0012A-1	MW-0012-AY	MW-0012-AX	MW-0012-AZ	M012A3Y	M012A4Y	M120A1Y	M120A2X	M120A3	M120A4A	M120A5	M120A6X	M120A7X	M120A8X	M120A9X	M120B1X	M120B2X	M120B3X	M120B4X-100608	M120B5X	M120B6X	M120B7	M120B7X	M120B8	M120B8X	M120C2	M120C3	M120C4	M120C5	M120C6	M120C7	M120C8	M120C9
			SDG	CS640	54399	60035	60694	61449	RFE28	RFE62	RFE40	RFE65	RFE88	RFF11	RFF25	RFF58	966187	991777	1016740	1041205	1105279	1151840	RFS46	RFT33	RFU20	RFU75	RFU77	RFV21	RFV23	CS005	CS043	CS070	CS102	CS137	CS176	CS211	CS245
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	5U	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	10U	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	2U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	10U	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	10U	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	10U	10U	10U	10U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	10U	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U
Acetone	ug/L	N	6000	6U	-	-	-	-	10J	6U	6U	6U	6U	6U	6U	6U	6U	10J	6U	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	2	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	5U	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.5U	4U	4U	4U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.5U	5U	5U	5U	5U	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	7	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	5U	5U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	8	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	-	-	-	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1J	-	-	-	-	1U	1U	1U	1U	4J	1U	2J	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	0.5U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	5U	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	2	5U	5U	5U	5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	2	5U	5U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-120	MW-120	MW-120	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121R	MW-121R	MW-121R	MW-121R	MW-121R	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122
			Sample Date	09/15/2015	10/12/2017	01/22/2018	11/27/2002	02/26/2003	09/26/2003	03/04/2004	09/22/2004	05/24/2005	10/26/2005	05/25/2006	12/12/2006	05/18/2007	07/30/2008	05/19/2009	06/04/2010	07/19/2011	03/16/2012	03/01/2013	08/26/2014	04/27/2017	04/27/2017	08/31/2017	11/30/2017	03/06/2018	10/25/2002	02/25/2003	09/23/2003	05/24/2004	10/07/2004	06/07/2005	11/04/2005	11/14/2006	05/31/2007	08/14/2008
			Field Sample ID	M120D1	M120E2	M120E3	M121A1Y	M121A2Y	M121A3	M121A4A	M121A5X	M121A6X	M121A7X	M121A8X	M121A9X	M121B1X	M121B2X	M121B3X	M121B4X-100604	M121B5X	M121B6X	M121B7X	M121B8X	D0427178	M121RC1X	M121RC2X	M121RC3X	M121RC4X	M122A1X	M122A2Y	M122A3	M122A4	M122A5X	M122A6X	M122A7X	M122A9X	M122B1X	M122B2X
			SDG	CS284	CS616	CS634	RFE40	RFE65	RFE87	RFE98	RFF25	RFF55	964862	991108	1017858	1039073	1103086	1145500	RFS46	RFT43	RFU23	RFX87	CS146	CQ610	CQ610	CQ751	CQ910	CQ994	RFE35	RFE65	RFE87	RFF12	RFF28	RFF58	966187	1014239	1040574	1105517
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	-	-	-	2U	2U	4U	4UJ	40U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	1U	1U	2U	2UJ	20U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	-	-	-	2U	2U	4U	4UJ	40U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	1U	1U	2U	2UJ	20U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	1U	1U	2U	2UJ	20U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	1U	1U	2U	2UJ	20U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	6J	5J	3J	3U	3U	3U	3U	3U	3U	-	-	3U	-	-	-	-	-	3U	3U	6U	6UJ	60U	4J	4J	3U	3U	3J	4J	3U	5J	-	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	3U	-	-	-	-	-	3U	3U	6U	6UJ	60U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	3U	-	-	-	-	-	3U	3U	6U	6UJ	60U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U
Acetone	ug/L	N	6000	6U	6U	6U	20J	20	15J	13J	9J	6U	6U	9J	14J	-	-	11J	-	-	-	-	-	6J	6U	12U	12UJ	120U	9J	6U	6	6U	12J	14J	7J	14J	-	12J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	10	3J	9	4J	13	2J	0.5U	0.5U	4J	2J	9J	6	3J	3J	0.8J	0.5U	0.5U	2	3	3	3J	10U	290	350	270	230	220	230	120	86	180	150
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	1U	1U	2U	2UJ	20U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2J	2U	2J	2U	2J	2U	2U	2U	2U	-	-	2U	-	-	-	-	-	2U	2U	4U	4UJ	40U	96	120	99	91	93	74	63	97	-	86
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	16	5	6	6	27	8	0.8U	0.9J	0.9J	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	1J	2J	1J	1J	10U	24	140	34	42	31	29	24	1J	14	32
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	2J	1U	1U	1U	3J	1J	1U	1U	1U	-	-	1J	-	-	-	-	-	1U	1U	2U	2UJ	20U	17	10	12	16	11	8	4J	1U	-	5
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	1U	1U	2U	2UJ	20U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	0.5U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	3J	1J	2J	2J	2J	1J	1U	1U	1J	-	-	1U	-	-	-	-	-	1J	1J	2U	2UJ	20U	69	68	68	65	65	46	39	72	-	45
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	-	-	-	2U	2U	4U	1UJ	10U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	1U	1U	2U	2UJ	20U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	1J	1J	2J	3J	5J	0.7U	0.7U	0.7U	0.7U	0.7U	4U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	1J	2J	2J	1J	10U	18	65	13	9	8	7	8	5	7	14
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U	1UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	20	7	8	6	19	4J	0.9J	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	2	2	2	1J	10U	47	220	83	51	63	32	38	81	26	75
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124
			Sample Date	07/07/2009	06/02/2010	06/03/2011	03/09/2012	03/09/2012	04/09/2013	04/09/2013	05/29/2014	04/17/2015	11/25/2002	04/28/2003	09/12/2003	09/27/2004	06/03/2005	11/04/2005	12/08/2006	05/25/2007	06/25/2008	09/14/2010	06/14/2011	08/21/2012	04/19/2013	08/19/2013	08/27/2014	09/23/2014	10/13/2015	11/26/2002	02/25/2003	08/28/2003	10/05/2004	06/09/2005	11/04/2005	11/16/2006	06/06/2007	11/29/2007
			Field Sample ID	M122B3X	M122B4X-100602	M122B5X	D0309121	M122B6X	D0409131	M122B7X	M122B8X	M122C4X	M123A1Y	M123A2	M123A3	M123A4	M123A5X	M123A6X	M123A7X	M123A8X	M123A9X	M123B2X	M123B3X	M123B4X	M123B5X	M123B6	M123B7X	M123B8X	M123C1X	M124A1Y	M124A2Y	M124A4	M124A5X	M124A6X	M124A7X	M124A9X	M124B1X	M124B2X
			SDG	1152446	RFS45	RFT27	RFU16	RFU16	RFY63	RFY63	CS106	CS222	RFE40		RFE86	RFF26	RFF58	966187	1017481	1040018	1097890	RFS67	RFT32	RFV30	RFY97	CP078	CS147	CP515	CP880	RFE40	RFE65	RFE85	RFF27	946781	966187	1014679	1041430	1067442
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	6J	3U	4J	3U	3U	5J	6J	3U	3U	3U	3	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	18J	26	9J	6U	6U	12J	12J	17J	25	6U	6	6U	12J	7J	6U	7J	11J	9J	6U	6U	9J	6U	6U	6U	6U	6U	6U	6U	6U	9J	11J	6U	6U	6J	9J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	150	140	120	120	120	86	91	20	36	260	290	270	140	140	200	190	180	200	88	40	47	180	16	10	7	19	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	53	73	75	85	87	92	97	62	94	84	75	49	25	32	35	57	47	42	38	32	35	60	18	15J	10	18	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	5J	30	10	29	30	6	6	0.7J	3	130	130	140	68	32	94	110	85	81	92	40	110	130	54	19	22	20	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	6	9	4J	5J	5J	9	10	7	7	19	22	25	19	8	23	28	18	24	23	13	24	25	22	23	23	34	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16000	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7J	0.8J	0.5U	0.7J	0.7J	0.7J	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	24	36	43	43	43	42	44	23	50	40	49	25	17	20	23	34	26	24	27	13	25	38	9	4J	3J	6	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	4J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	5	12	7	24	24	12	12	5	8	53	170	62	7	40	99	120	96	71	140	70	180	140	8	34	55	26	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	8	51	24	61	60	18	19	6	15	630	830	860	390	360	680	760	750	670	780	550	960	890	500	430	470	520	0.9J	0.9J	0.8J	0.8J	0.8J	0.8U	0.8U	0.8U	0.8J
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3300J+	-	2200	3000	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-126	MW-126	MW-126	MW-126
			Sample Date	07/03/2008	10/17/2008	07/01/2009	11/18/2009	05/26/2010	10/06/2010	06/01/2011	06/01/2011	02/16/2012	03/15/2013	06/05/2014	02/13/2015	11/22/2002	02/25/2003	09/17/2003	03/10/2004	10/06/2004	06/08/2005	11/08/2005	06/09/2006	11/21/2006	06/07/2007	08/08/2008	06/16/2009	07/01/2010	06/30/2011	02/21/2012	03/28/2013	02/12/2014	10/23/2015	02/02/2018	11/25/2002	02/13/2003	08/27/2003	03/11/2004
			Field Sample ID	M124B3X	M124B4X	M124B5X	M124B7X	M124B8X-100526	M124B8X	D0601111	M124B9X	M124C1X	M124C2X	M124C3X	M124C4X	M125A1Y	M125A2Y	M125A3	M125A4	M125A5X	M125A6X	M125A7X	M125A8X	M125A9X	M125B1X	M125B2X	M125B3X	M125B4X-100701	M125B5X	M125B6X	M125B7X	M125B8X	M125B9X	M125C9X	M126A1Y	M126A2Y	M126A4	M126A5A
			SDG	1099204	1115719	1151840	RFS20	RFS44	RFS69	RFT26	RFT26	RFU11	RFY11	CS109	CS201	RFE40	RFE65	RFE86	RFE99	RFF28	946780	966572	993031	1015254	1041628	1104631	1149447	RFS51	RFT38	RFU12	RFY40	CS062	CS302	CS640	RFE42	RFE64	RFE85	RFE99
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	5J	3J	3U	3U	4J	5J	3U	3U	15U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U
Acetone	ug/L	N	6000	12J	11J	6U	7J	6U	6U	6U	6U	6U	6U	6U	6U	18J	170	6U	6U	18J	25	6U	14J	30U	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	800	19	37	14	110	17	84	290	770	19	1900	810	700	95	840	500	840	260	390	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41000	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	60	3J	3J	2U	28	13	2U	22	53	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	10U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	77	1J	3J	0.8U	12	2J	6	36	120	2J	400	190	140	24	310	290	470	160	230	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	6	1U	1U	1U	2J	1J	1U	3J	8J	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1700	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	-	-	-	-	-	-	-	-	-	-	0.5U	1J	1J	1J
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1J	36	6	1J	1U	13	5	1U	12	31	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	41	0.8J	0.9J	0.9J	34	4J	22	100	350	7	870	400	310	56	570	280	770	280	420	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	10U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	5U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	1J	0.8U	1J	0.9J	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	150	5J	5J	1J	66	6	48	250	940	15	3000	1300	960	250	2600	1300	3300	820	1700	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127
			Sample Date	09/30/2004	06/10/2005	11/08/2005	11/16/2006	06/06/2007	11/29/2007	07/03/2008	10/17/2008	07/07/2009	11/18/2009	05/26/2010	10/08/2010	05/26/2011	02/16/2012	03/15/2013	06/24/2014	02/19/2015	11/27/2002	02/14/2003	08/26/2003	03/04/2004	09/30/2004	06/14/2005	11/11/2005	11/28/2006	06/07/2007	06/07/2007	11/16/2007	07/18/2008	10/17/2008	07/07/2009	11/18/2009	05/26/2010	10/08/2010	05/26/2011
			Field Sample ID	M126A6X	M126A7X	M126A8X	M126B1X	M126B2X	M126B3X	M126B4X	M126B5X	M126B6X	M126B7X	M126B8X-100526	M126B9X	M126C1X	M126C2X	M126C3X	M126C4X	M126C5X	M127A1Y	M127A2X	M127A4	M127A5A	M127A6X	M127A7X	M127A8X	M127B1X	D0607071	M127B2X	M127B3X	M127B4X	M127B5X	M127B6X	M127B7X	M127B8X-100526	M127B9X	M127C1X
			SDG	RFF27	947003	966572	1014679	1041430	1067442	1099204	1115719	1152446	RFS20	RFS44	RFS72	RFT25	RFU11	RFY11	CS116	CS202	RFE42	RFE64	RFE85	RFE98	RFF27	947365	967213	1015744	1041628	1041628	1066019	1101417	1115719	1152446	RFS20	RFS44	RFS72	RFT25
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	12J	6U	6U	6U	6U	6U	6U	6U	10J	6J	6U	60U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	5U	1U
Methyl-t-butyl ether	ug/L	N	70	1J	0.8J	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-127	MW-127	MW-127	MW-127	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-13	MW-13	MW-13	MW-13	MW-13	MW-130	MW-130	MW-130	MW-130
			Sample Date	02/16/2012	03/11/2013	06/24/2014	02/19/2015	10/17/2002	01/30/2003	09/18/2003	09/29/2004	06/01/2005	11/11/2005	06/15/2006	11/09/2006	06/12/2007	08/20/2008	06/11/2009	06/15/2010	08/02/2011	03/28/2012	03/21/2013	03/21/2013	09/09/2014	04/17/2015	12/03/2015	06/09/2016	07/20/2016	05/16/2017	09/22/1997	10/22/2002	02/27/2003	12/05/2017	03/13/2018	12/02/2002	04/09/2003	02/24/2004	06/04/2004
			Field Sample ID	M127C2X	M127C3X	M127C4X	M127C5X	M128A1X	M128A2Y	M128A3	M128A4X	M128A5	M128A6X	M128A7X	M128A8X	M128A9X	M128B1X	M128B2X	M128B3X-100615	M128B4X	M128B5X	D0321131	M128B6X	M128B7X	M128B8X	M128B9X	M128C1X	M128C2X	M128C3	MW-0013-A1	M013A2Y	M013A3Y	M013A6X	M013A7X	M130A1X	M130A2Y	M130A3	040604MW-130
			SDG	RFU11	RFX98	CS116	CS202	RFE33	RFE62	RFE86	RFF26	RFF57	967213	993798	1013690	1042260	1106372	1148815	RFS47	RFT49	RFU32	RFY20	RFY20	CS153	CS222	CP942	CS413	CQ190	CS560	74432	RFE34	RFE65	CQ914	CQ999	RFE43	RFE70	RFE97	PHC06
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	1U	1U	0.5U	0.5U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	-	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	1U	1U	0.5U	0.5U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	-	1UJ	-	-	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	-	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	0.52U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	10U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	2U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	1U	1U	0.5U	0.5U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	10U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	10U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	-	3U	-	10U	3U	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	-	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	-	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-	-	7J	-	6U	-	-	9J	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.7J	0.5U	0.5U	73	6	0.9J	3J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	5U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	4U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	5U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	1U	1U	0.5U	0.5U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	33	5	16	18	18	20	23	12	-	-	-	-	-	-	-	-	-	-	2J	-	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	2U	2U	0.5U	0.5U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	3J	1U	1U	1U	1U	1U	1U	1J	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	4J	0.5U	0.5U	0.7J	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	28	7	16	11	2J	6	2J	4J	-	-	-	-	-	-	-	-	-	-	7	-	1J	-	-	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	-	2U	-	-	2U	2U	0.5U	0.5U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	5U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.5U	0.5U	0.7U	0.7U	0.7U	6	1J	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	0.7U	0.7U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	2U	2U	0.5U	0.5U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	-	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	6	0.8U	12	5J	5	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	280	-	100	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-134	MW-134	MW-134	MW-134
			Sample Date	09/22/2005	06/15/2006	06/20/2007	05/16/2008	09/11/2009	09/11/2009	08/03/2010	08/18/2011	06/26/2012	08/27/2013	08/22/2014	06/15/2016	05/03/2017	10/17/2002	10/07/2004	06/01/2005	11/15/2005	06/15/2006	11/21/2006	06/12/2007	12/12/2007	08/15/2008	07/08/2009	07/09/2010	08/04/2011	04/24/2012	04/04/2013	09/10/2014	04/17/2015	06/09/2016	05/10/2017	10/03/2002	01/21/2003	05/27/2004	08/05/2004
			Field Sample ID	M130A4X	M130A5X	M130A6X	M130A7X	D0911091	M130A8X	M130A9X	M130B1X	M130B2X	M130B3X	M130B4X	M130B5X	M130B6X	M133A1X	M133A2X	M133A3	M133A4X	M133A5X	M133A6X	M133A7X	M133A8X	M133A9X	M133B1X	M133B2X	M133B3X	M133B4X	M133B5X	M133B6X	M133B7X	M133B8X	M133B9X	M134A1Y	M134A2Y	040527MW-134	M134A4
			SDG	960339	993798	1043537	1091830	1161510	1161510	RFS62	RFT60	RFU92	RFB98	CS145	CS416	CS553	RFE33	RFF28	RFF57	967531	993798	1015254	1042260	1069481	1105739	1152663	RFS54	RFT50	RFU46	RFY53	CS155	CS222	CS413	CS557	RFE24	RFE58	PHS01	RFF19
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	10U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	10U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	15U	3U	3U	-	-	-	-	-	-	-	-	-	-	4J	5J	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	15U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	15U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	-	-	-	-	-	-	-	-	-	-	-	6U	20	8J	6U	8J	30U	13J	6U	-	-	-	-	-	-	-	-	-	-	10J	11J	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2J	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	8	6	2J	1J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1J	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	-	-	-	-	-	-	-	-	-	-	-	12	7	8	3J	7	10U	5	4J	-	-	-	-	-	-	-	-	-	-	63	20	8	9
Dibromochloromethane	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	10U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2UJ	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	1J	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	-	-	-	-	-	-	-	-	-	-	-	3J	1J	1U	1U	2J	5U	3J	1U	-	-	-	-	-	-	-	-	-	-	52	27	13	13
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	0.8J	0.6J	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	-	-	-	-	-	-	-	-	-	-	-	5	4J	5J	2J	4J	5U	4J	4J	-	-	-	-	-	-	-	-	-	-	51	19	3J	4J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	10U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	4U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.7J	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	10U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	5U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.9J	0.8U	0.8U	0.8U	0.8U	4U	1J	0.8U	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	1J	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-136	MW-136	MW-136	MW-136
			Sample Date	03/10/2005	08/11/2005	03/07/2006	09/01/2006	03/13/2007	02/26/2008	02/18/2009	03/11/2010	04/26/2011	06/07/2012	05/21/2013	06/25/2014	02/23/2018	10/03/2002	01/22/2003	09/24/2003	05/27/2004	08/05/2004	03/10/2005	08/11/2005	03/07/2006	09/01/2006	03/13/2007	02/26/2008	02/18/2009	03/11/2010	04/26/2011	06/07/2012	05/21/2013	06/25/2014	02/23/2018	11/26/2002	02/11/2003	06/12/2003	08/29/2003
			Field Sample ID	M134A5	M134A6	M134A7	M134A8	M134A9	M134B1X	M134B2X	M134B3X	M134B4X	M134B5X	M134B6X	M134B7X	M134C2X	M135A1Y	M135A2Y	M135A3	040527MW-135	M135A4	M135A5	M135A6	M135A7	M135A8	M135A9	M135B1X	M135B2X	M135B3X	M135B4X	M135B5X	M135B6X	M135B7X	M135C2X	M136A1X	M136A2Y	M136A3	M136A4
			SDG	RFF43	955073	980623	1004086	1029141	1079048	1132740	RFS33	RFT13	RFU80	RFZ61	CS117	CS652	RFE24	RFE58	RFE87	PHS01	RFF19	RFF43	955073	980623	1004086	1029141	1079048	1132740	RFS33	RFT13	RFU80	RFZ61	CS117	CS652	RFE42	RFE64	RFE76	RFE85
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	6J	8J	4J	3U	3U	3U	3U	3U	8U	4J	4J	3J	3U	3U	4J	3J	3U	4J	3U	4J	3U	4J
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	8U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	8U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	8J	6U	6U	44	-	-	-	-	-	-	-	-	-	26	25	18J	6U	6U	6U	6U	16J	25J	17J	17J	19J	9J	6U	17J	16J	6U	18J	6U	21	16J	21
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.7J	0.5U	1J	0.5J	0.5U	8	0.5U	0.5U	0.5U	0.5J	0.8J	3J	38	8	47	20	110	10	91	5J	66	40	7	0.5U	5	0.5U	2J	2	22	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82000	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	3J	3J	5J
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	9	7	4J	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	5U	2U	2U	2U	3J	4J	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	5U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5UJ	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.9J	0.8U	0.8U	0.8U	1J	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	2J	1U	1J	-	-	-	-	-	-	-	-	-	1U	1U	1U	2J	1U	6	1U	2J	3U	3J	2J	1U	2J	4J	1U	1U	1U	2J	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3400	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	41	71	67	86	73	76	64	85	36	53	62	42	0.5U	34	26	25	18	10	0.5U	0.7J	0.6J	0.6J
Methylcyclohexane	ug/L	N	100	1U	4J	1U	2J	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1J	2J	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	5U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	2U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	5U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	3U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5J	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	1J	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137
			Sample Date	10/07/2004	06/10/2005	11/03/2005	11/14/2006	05/25/2007	11/30/2007	07/01/2008	10/14/2008	06/24/2009	11/17/2009	05/11/2010	10/06/2010	06/03/2011	02/14/2012	03/05/2013	06/03/2014	09/30/2015	10/23/2002	02/27/2003	09/03/2003	09/24/2004	05/26/2005	11/01/2005	05/31/2006	11/17/2006	06/08/2007	08/22/2008	07/08/2009	05/28/2010	08/02/2011	03/27/2012	03/27/2012	04/03/2013	09/05/2014	10/01/2015
			Field Sample ID	M136A5X	M136A6X	M136A7X	M136A9X	M136B1X	M136B2X	M136B3X	M136B4X	M136B5X	M136B6X	M136B7X-100511	M136B8X	M136B9X	M136C1X	M136C2X	M136C3X	M136C4X	M137A1Y	M137A2Y	M137A3	M137A4	M137A5	M137A6X	M137A7	M137A8	M137A9	M137B1X	M137B2X	M137B3X-100528	M137B4X	D0327121	M137B5X	M137B6X	M137B7X	M137B8X
			SDG	RFF28	947003	965984	1014239	1040018	1067672	1098780	1114995	1150741	RFS20	RFS42	RFS69	RFT27	RFU10	RFX90	CS108	CS292	RFE34	RFE65	RFE85	RFF25	RFF56	965566	991597	1014876	1041869	1106759	1152663	RFS44	RFT49	RFU30	RFU30	RFY52	CS152	CS293
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	4J	3U	3U	3U	3U	4J	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	16J	6U	7J	10J	11J	17J	6U	6U	6U	9J	19J	15J	6U	6U	6U	22	15J	6U	6J	6U	13J	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1J	3J	1U	1U	1U	1U	1U	3J	2J	1U	4J	3J	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	3J	2J	2U	2U	3J	2U	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2J	1J	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.6J
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-14
			Sample Date	10/23/2002	03/03/2003	09/03/2003	09/24/2004	05/26/2005	10/28/2005	06/15/2006	12/01/2006	06/08/2007	08/21/2008	06/18/2010	08/02/2011	03/22/2012	04/03/2013	09/09/2014	10/01/2015	10/24/2002	03/27/2003	09/11/2003	09/24/2004	05/26/2005	11/01/2005	06/15/2006	12/12/2006	06/08/2007	08/21/2008	07/08/2009	05/28/2010	08/04/2011	03/22/2012	04/03/2013	09/09/2014	04/16/2015	10/18/1995
			Field Sample ID	M138A1Y	M138A2Y	M138A3	M138A4	M138A5	M138A6X	M138A7	M138A8	M138A9	M138B1X	M138B2X-100618	M138B3X	M138B4X	M138B5X	M138B6X	M138B7X	M139A1Y	M139A2X	M139A3	M139A4X	M139A5X	M139A6X	M139A7X	M139A8X	M139A9X	M139B1X	M139B2X	M139B3X-100528	M139B4X	M139B5X	M139B6X	M139B7X	M139B8X	MW-0014A-1
			SDG	RFE34	RFE66	RFE85	RFF25	RFF56	965244	993798	1016343	1041869	1106580	RFS47	RFT49	RFU28	RFY52	CS153	CS293	RFE35	RFE68	RFE86	RFF25	RFF56	965566	993798	1017858	1041869	1106580	1152663	RFS44	RFT50	RFU28	RFY52	CS153	CS221	54377
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5.00U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	10.00U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	2.00U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	10.00U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	10.00U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	7J	3U	3U	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	5J	3U	-	-	-	-	-	-	-	-	-	10.00U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	10.00U
Acetone	ug/L	N	6000	9J	6U	6U	7J	6U	7J	6U	6U	-	-	-	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	9J	-	-	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1.00U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1J	1U	1U	-	-	-	-	-	-	-	-	-	5.00U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	4.00U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	5.00U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	6	2J	6	5J	2U	2U	8	3J	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5.00U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	2J	3J	1J	1J	3J	2J	4J	5J	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	1J	1J	3J	1J	0.8J	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	3J	3J	3J	3J	1U	2J	2J	2J	-	-	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	5.00U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	5.00U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5J	0.6J	5.00U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140
			Sample Date	12/18/1995	02/22/1996	04/17/1996	10/10/2002	01/29/2003	11/12/2003	08/16/2004	03/23/2005	08/16/2005	03/23/2006	09/08/2006	03/21/2007	03/11/2008	02/27/2009	03/11/2010	03/29/2011	05/02/2012	06/25/2013	09/23/2014	07/08/2015	01/07/2016	02/17/2017	08/25/2017	10/23/2002	03/04/2003	09/10/2003	09/24/2004	06/02/2005	10/28/2005	06/23/2006	12/05/2006	05/22/2007	08/21/2008	06/09/2009	04/29/2010
			Field Sample ID	MW-0014-A2	MW-0014-AY	MW-0014-AX	M014A1Y	M014A2Y	M014A3	M014A4	M014A5	M014A6	M014A7	M014A8	M014A9	M014B1X	M014B2X	M014B3X	M014B4X	M014B5X	M014B6X	M014B7X	M014B8X	M014B9X	M014C4X	M014C6X	M140A1X	M140A2Y	M140A3	M140A4	M140A5	M140A6X	M140A7	M140A8	M140A9	M140B1X	M140B2X	M140B3X
			SDG	55315	60667	61449	RFE28	RFE61	RFE92	RFF19	RFF44	955618	982888	1004877	1030299	1081108	1134114	RFS33	RFT03	RFU51	RFB18	CS159	CS258	CS337	CS516	CS594	RFE34	RFE66	RFE86	RFF25	RFF57	965244	994921	1016740	1039430	1106580	1148434	RFS40
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	5U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	10U	10U	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	10U	10U	10U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-
Acetone	ug/L	N	6000	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	6U	6U	16J	6U	6U	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	5U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Bromoform	ug/L	N	4	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Chlorobenzene	ug/L	N	50	5U	4U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Chloroform	ug/L	N	70	5U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Cyclohexane	ug/L	N	100	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	5U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	2J	1U	1U	1U	1U	4J	1U	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1J	1U	1U	1U	1U	1J	1U	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
Styrene	ug/L	N	100	5U	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
Toluene	ug/L	N	600	5U	5U	5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Xylene (total)	ug/L	N	1000	5U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-140	MW-140	MW-140	MW-140	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153
			Sample Date	06/28/2011	03/29/2012	04/03/2013	09/09/2014	12/02/2002	02/14/2003	07/10/2003	10/29/2003	08/30/2004	04/05/2005	09/07/2005	04/04/2006	09/13/2006	04/20/2007	09/13/2007	03/27/2008	09/11/2008	03/18/2009	10/08/2009	03/18/2010	08/19/2010	04/07/2011	06/08/2012	05/31/2013	09/24/2014	09/24/2014	05/27/2016	09/14/2016	12/27/2016	05/31/2017	10/07/2002	01/22/2003	07/23/2003	11/04/2003	08/19/2004	04/07/2005
			Field Sample ID	M140B4X	M140B5X	M140B6X	M140B7X	M144A1X	M144A2Y	M144A3	M144A4	M144A5	M144A6X	M144A7X	M144A8X	M144A9	M144B1X	M144B2X	M144B3X	M144B4X	M144B5X	M144B6X	M144B7X	M144B8X	M144B9X	M144C1X	M144C2X	D0924141	M144C3X	M144C4X	M144C5X	M144C6X	M144C7X	M153A1Y	M153A2Y	M153A3	M153A4A	M153A5	M153A6
			SDG	RFT37	RFU34	RFY52	CS153	RFE43	RFE64	RFE81	RFE91	RFF22	RFF47	958318	984270	1005725	1034667	1056329	1083600	1109693	1136756	1165848	RFS34	RFS64	RFT05	RFU81	RFZ73	CS160	CS160	CS407	CQ293	CQ497	CS564	RFE26	RFE58	RFE83	RFE91	RFF19	RFF47
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	10U	10U	2U	2U	2U	20U	2U	-	-	-	-	-	20UJ	40U	-	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	10U	10U	2U	2U	2U	20U	2U	-	-	-	-	-	20UJ	40U	-	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	15U	15U	3U	3J	4J	30U	3U	-	-	-	-	-	30UJ	60U	-	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	15U	15U	3U	3U	3U	30U	3U	-	-	-	-	-	30UJ	60U	-	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	15U	15U	3U	3U	3U	30U	3U	-	-	-	-	-	30UJ	60U	-	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	-	-	-	-	6U	6U	6U	6U	60U	100	6U	6U	17J	6U	29	30U	90J	13J	16J	19J	60U	14J	-	-	-	-	-	60UJ	120U	-	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5J	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	25U	5UJ	10U	1U	0.5U	0.5U	1J	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	3J	2U	2U	2U	10U	10U	2U	2U	2U	20U	2U	-	-	-	-	-	20UJ	40U	-	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	10U	10U	2U	2U	2U	20U	2U	-	-	-	-	-	5UJ	10U	-	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.5U	0.5U	25U	5UJ	10U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	0.5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	4J	0.7J	3J	0.5U	3U	3U	0.5J	0.5U	0.5U	5U	0.5U	-	-	-	-	-	5UJ	10U	-	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	10U	10U	2U	2U	2U	20U	2U	-	-	-	-	-	20UJ	40U	-	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	10UJ	20U	-	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	4U	4U	0.7U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.5U	0.5U	25U	5UJ	10U	1U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	-	-	-	-	-	5UJ	10U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	10U	10U	2U	2U	2U	20U	2U	-	-	-	-	-	5UJ	10U	-	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U	10U	1U	-	-	-	-	-	5UJ	10U	-	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.5U	0.5U	25U	5UJ	10U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26J	200UJ	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154
			Sample Date	08/25/2005	03/15/2006	09/19/2006	03/21/2007	09/11/2007	03/11/2008	09/03/2008	04/02/2009	09/23/2009	03/02/2010	09/02/2010	03/29/2011	10/25/2011	06/06/2012	09/05/2012	07/03/2013	10/04/2013	06/11/2014	01/14/2015	01/07/2016	08/05/2016	02/28/2017	08/29/2017	03/13/2018	10/17/2002	01/31/2003	09/11/2003	07/30/2008	11/11/2008	06/09/2009	11/19/2009	06/15/2010	09/29/2010	08/04/2011	11/22/2011
			Field Sample ID	M153A7	M153A8	M153A9	M153B1	M153B2X	M153B3X	M153B4X	M153B5X	M153B6X	M153B7X	M153B8X	M153B9X	M153C1X	M153C2X	M153C3X	M153C4X	M153C5X	M153C6X	M153C7X	M153C8X	M153C9X	M153D1X	M153D2X	M153D3X	M154A1Y	M154A2X	M154A3	M154A4X	M154A5X	M154A6X	M154A7X	M154A8X-100615	M154A9X	M154B1X	M154B2X
			SDG	956931	981802	1006278	1030299	1055613	1081108	1108227	1138848	1163168	RFS32	RFS65	RFT03	RFT81	RFU79	RFV35	RFB29	CS023	CS111	CS194	CS337	CS438	CS521	CS595	CS657	RFE33	RFE62	RFE86	1103086	1119533	1148434	1171988	RFS47	RFS69	RFT50	RFT88
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	6	1U	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	-	3U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	-	3U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	-	3U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	6U	6U	6U	-	6U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10J	6U	6U	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.8J	0.5U	0.5U	0.5U	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	2U	2U	2U	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	-	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	4U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	-	0.8U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	-	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	-	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
			Sample Date	03/27/2012	08/16/2012	04/04/2013	10/29/2013	03/28/2014	11/13/2014	04/16/2015	02/02/2016	02/09/2016	08/16/2016	02/15/2017	08/22/2017	12/05/2002	02/04/2003	09/29/2003	05/27/2004	08/09/2004	03/10/2005	08/11/2005	03/07/2006	09/01/2006	03/13/2007	09/21/2007	03/04/2008	09/30/2008	02/18/2009	10/13/2009	03/11/2010	08/18/2010	04/26/2011	09/22/2011	06/07/2012	09/05/2012	05/21/2013	10/02/2013
			Field Sample ID	M154B3X	M154B4X	M154B5X	M154B7X	M154B8X	M154B9X	M154C1X	M154HS	M154C2X	M154C3X	M154C4X	M154C5X	M158A1X	M158A2X	M158A3	040527MW-158	MW158A4	M158A5	M158A6	M158A7	M158A8	M158A9	M158B1	M158B2X	M158B3X	M158B4X	M158B5X	M158B6X	M158B7X	M158B8X	M158B9X	M158C1X	M158C2X	M158C3X	M158C4X
			SDG	RFU30	RFV29	RFY53	CS034	CS078	CS185	CS221	CS349	CS353	CS440	CS514	CS592	RFE45	RFE62	RFE87	PHS01	RFF18	RFF43	955073	980623	1004086	1029141	1057469	1080011	1112628	1132740	1166229	RFS33	RFS64	RFT13	RFT71	RFU80	RFV35	RFZ61	CS020
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	SP	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	2U	-	-	-	-	-	-	-	-	2U	2U	2U	10U	2U	2U	2U	2U	4U	2U	10U	10U	20U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	2U	-	-	-	-	-	-	-	-	2U	2U	2U	10U	2U	2U	2U	2U	4U	2U	10U	10U	20U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	3U	-	-	-	-	-	-	-	-	3U	12	3U	15U	3U	3U	3U	3U	6U	3U	15U	15U	30U	3U	15U	3U	3U	3U	3J	6J	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	3U	-	-	-	-	-	-	-	-	3U	3U	3U	15U	3U	3U	3U	3U	6U	3U	15U	15U	30U	3U	15U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	3U	-	-	-	-	-	-	-	-	3U	3U	3U	15U	3U	3U	3U	3U	6U	3U	15U	15U	30U	3U	15U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	-	-	-	6U	-	-	-	-	-	-	-	-	6U	15J	6U	30U	6U	6U	6U	36	20J	17J	30U	30U	60U	42	30U	9J	6U	6U	21	57	6U	12J	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	3U	3U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	2J	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	-	-	-	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	-	-	-	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	-	-	-	2U	-	-	-	-	-	-	-	-	2U	2U	2U	10U	2U	2U	2U	2U	4U	2U	10U	10U	20U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	2U	-	-	-	-	-	-	-	-	2U	2U	2U	10UJ	2U	2U	2U	2U	4U	2U	10U	10U	20U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	0.5U	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	3U	3U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	2U	-	-	-	-	-	-	-	-	2U	2U	2U	10U	2U	2U	2U	2U	4U	2U	10U	10U	20U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	4U	0.7U	0.7U	0.7U	0.7U	1U	0.7U	4U	4U	7U	0.7U	4U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	2U	-	-	-	-	-	-	-	-	2U	2U	2U	10U	2U	2U	2U	2U	4U	2U	10U	10U	20U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	1U	-	-	-	-	-	-	-	-	1U	1U	1U	5U	1U	1U	1U	1U	2U	1U	5U	5U	10U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	4U	4U	8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164
			Sample Date	06/25/2014	11/06/2014	07/15/2015	03/18/2016	09/13/2016	03/29/2017	08/30/2017	12/04/2002	03/04/2003	09/23/2004	05/27/2005	10/27/2005	05/31/2006	11/30/2006	05/18/2007	05/18/2007	12/12/2007	08/19/2008	07/10/2009	08/02/2011	09/11/2014	04/17/2003	10/01/2003	09/21/2004	05/24/2005	10/25/2005	05/23/2006	11/02/2006	05/17/2007	06/17/2008	11/13/2008	05/07/2009	11/19/2009	06/04/2010	10/08/2010
			Field Sample ID	M158C5X	M158C6X	M158C7X	M158C8X	M158C9X	M158D1X	M158D2X	M159A1Y	M159A2Y	M159A3	M159A4	M159A5X	M159A6	M159A7	D0518072	M159A8	M159A9	M159B1X	M159B2X	M159B3X	M159B4X	M164A1Y	M164A2	M164A3	M164A4	M164A5	M164A6	M164A7	M164A8X	M164A9x	M164B1X	M164B2X	M164B3X	M164B4X-100604	M164B5X
			SDG	CS117	CS182	CS261	CS376	CS452	CS533	CS596	RFE43	RFE66	RFF25	RFF56	965062	991597	1016155	1039073	1039073	1069481	1106131	1153027	RFT49	CS154	RFE71	RFE88	RFF24	RFF55	964663	990703	1012673	1038811	1096530	1120044	1143853	1171988	RFS46	RFS72
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	10UJ	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	10UJ	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	15UJ	6J	3U	5J	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	15UJ	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	15UJ	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	30UJ	45J	7J	20J	60U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.9J	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	12	24	30	30	29	35	30	31	31	33	16	35	29	35
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	10UJ	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	5UJ	1U	1U	1U	10U	4J	4J	1U	1U	1J	1J	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	10UJ	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	5UJ	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1J	1J	1J	1J	1J	1U	1J	1J	1J
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	4J	5	4J	4J	4J	4J	3J	3J	4J	3J	1J	3J	3J	3J
Xylene (total)	ug/L	N	1000	0.5U	0.5U	3UJ	0.5U	0.5U	0.5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-165	MW-165	MW-165	MW-165	MW-165R	MW-165R	MW-165R	MW-165R	MW-165R	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166
			Sample Date	08/18/2011	11/22/2011	03/20/2012	08/14/2012	02/22/2013	10/29/2013	04/03/2014	12/12/2014	06/26/2015	09/14/2017	12/15/2017	03/14/2018	04/11/2003	09/30/2003	09/21/2004	05/24/2005	04/26/2017	09/06/2017	11/30/2017	11/30/2017	03/09/2018	04/11/2003	09/29/2003	09/21/2004	05/24/2005	10/25/2005	05/24/2006	11/02/2006	05/17/2007	12/04/2007	06/24/2008	11/13/2008	05/07/2009	11/19/2009	06/04/2010
			Field Sample ID	M164B6X	M164B7X	M164B8X	M164B9X	M164C1X	M164C2X	M164C3X	M164C4X	M164C5X	M164D1X	M164D2X	M164D3X	M165A1Y	M165A2	M165A3	M165A4	M165RA5X	M165RA6X	D1130178	M165RA7X	M165RA8X	M166A1Y	M166A2	M166A3	M166A4	M166A5	M166A6	M166A7	M166A8X	M166A9	M166B1X	M166B2X	M166B3X	M166B4X	M166B5X-100604
			SDG	RFT60	RFT88	RFU25	RFV28	RFX74	CS034	CS080	CS192	CS255	CS603	CS627	CR001	RFE70	RFE87	RFF24	RFF55	CQ608	CQ756	CQ910	CQ910	CQ997	RFE70	RFE87	RFF24	RFF55	964663	990907	1012673	1038811	1068129	1097656	1120044	1143853	1171988	RFS46
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	4U	4U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	4U	4U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	4U	4U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	10U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	10U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15U	15U	3U	3U	30U	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15U	15U	3U	3U	30U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15U	15U	3U	3U	30U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	11J	6U	6U	6U	6U	6U	6U	6U	11J	30U	30U	26	12J	60U	6U	18J	7J	9J	7J	8J	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	1J	2J	0.7J	0.5U	3	2	2	1	0.5U	0.5U	3U	3U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	4U	4U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	4U	4U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	30	28	26	35	22	28	19	25	23	21	21	10	0.8U	0.8U	0.8U	0.8U	0.5U	0.7J	0.6J	0.6J	0.8J	0.8U	0.8U	4U	4U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4J	3J	3J	2J	2U	2U	2U	2U	2U	2U	2U	10U	10U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	10U	10U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	1J	2J	1J	0.5U	2	0.5U	0.5U	0.6J	0.8U	0.8U	4U	4U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	3J	2J	2J	1J	1U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	2U	2U	10U	10U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	4U	4U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	4U	4U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	4U	4U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1J	1J	1J	2J	1U	1J	2	0.7J	0.7J	0.5U	0.5J	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	10U	10U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	2J	2J	2J	2J	1U	2J	1J	2	1	1	1	0.5J	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3J	2J	4J	3J	0.5U	0.7J	0.5U	0.5U	0.5U	0.8U	0.8U	4U	4U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166R	MW-166R	MW-166R	MW-166R	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167
			Sample Date	10/08/2010	10/08/2010	08/16/2011	11/22/2011	03/20/2012	08/14/2012	02/22/2013	10/29/2013	04/03/2014	12/12/2014	07/14/2015	04/26/2017	09/14/2017	12/15/2017	03/09/2018	04/10/2003	02/18/2004	08/12/2004	10/19/2004	01/13/2005	05/19/2005	07/26/2005	11/29/2005	02/09/2006	05/02/2006	07/11/2006	09/25/2007	06/05/2008	07/29/2009	07/29/2010	08/25/2011	07/03/2012	08/06/2013	08/12/2014	12/03/2015	04/28/2016
			Field Sample ID	D1008101	M166B6X	M166B7X	M166B8X	M166B9X	M166C1X	M166C2X	M166C4X	M166C5X	M166C6X	M166C7X	M166RD1X	M166RD2X	M166RD3X	M166RD4X	M167A1Y	M167A2	M167A3	M167A4X	M167A5X	M167A6X	M167A7X	M167A8X	M167A9X	M167B1X	M167B2X	M167B3X	M167B4X	M167B5X	M167B6X	M167B7X	M167B8X	M167B9X	M167C1X	M167C2X	M167C3X
			SDG	RFS72	RFS72	RFT59	RFT88	RFU25	RFV28	RFX74	CS034	CS080	CS192	CS260	CQ608	CS603	CS627	CQ997	RFE70	RFE97	RFF16	RFF30	RFF36	RFF53	952791	969074	977634	987857	996873	1057932	1094772	1155531	RFS60	RFT63	RFU98	RFB82	CS140	CS323	CS392
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	3J	7	6	10	0.8U	4J	4J	3J	48	3J	7	0.8U	4J	6	1J	4J	5	4J	0.5U	0.5U	5U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	45	190	22	54	8	21	63	95	870	45	120	3J	85	6	0.8U	14	3J	0.8U	0.5U	0.5U	5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	20U	10UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	75	230	140	280	16	150	180	200	530	150	320	13	170	98	3J	77	73	31	0.6J	0.8J	5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	20U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	6U	30UJ	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	6U	30UJ	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	6U	30UJ	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U
Acetone	ug/L	N	6000	6U	6U	20	12J	6U	6J	6U	6U	6U	6J	6U	12U	60U	30U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	60U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2J	5U	3U	0.6J	0.5U	0.5U	0.5U	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50000	25000	16000	56000	33000	65000	41000	33000	73000	29000	45000	120000	72000	56000	47000
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	10U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	30	61	86	120	1U	92	24	5J	2J	46	30	2J	33	56	75	27	62	2J	23	4	8J
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	7J
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	3J	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.9J	0.8U	0.5U	0.5U	5U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2J	2U	2U	2U	2U	4U	20U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5UJ	0.5U	1U	5U	3U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	2.4J	1.0U	1.0U	1.0U	1.0U	2.1J	1.0U	3.0J	1.0U	13	3.8J	5.7
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	3	5U	3J	2	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7200	5900	1900	7500	150	1000	9.8	3700	94	260	610	120	5100	22	3300	250	4000	760	1000
Methyl acetate	ug/L	N	7000	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	0.6J	0.5U	0.5U	0.6J	0.6J	0.7J	0.5U	0.5U	0.8J	0.8J	0.5J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	5U	3U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	2	5U	3U	0.6J	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U	1U	1U	1J	1U	1U	1U	1U	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	5U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	5U	3U	0.5U	1U	1U	1J	3J	1U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1J	1U	1U	1U	0.5U	0.5U	5U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	9	5U	3U	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	5U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-167	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170
			Sample Date	06/15/2017	04/17/2003	02/10/2004	07/15/2004	10/08/2004	02/23/2005	05/05/2005	07/19/2005	12/01/2005	02/16/2006	05/02/2006	07/19/2006	05/30/2008	09/02/2009	07/27/2010	08/25/2011	06/19/2012	06/12/2013	08/01/2013	08/13/2014	12/02/2015	06/16/2017	04/16/2003	02/18/2004	07/15/2004	10/12/2004	01/06/2005	05/19/2005	07/28/2005	12/16/2005	02/24/2006	05/10/2006	07/21/2006	06/12/2008	10/10/2008	08/20/2009
			Field Sample ID	M167C4X	M168A1Y	M168A2A	M168A3	M168A4X	M168A5X	M168A6X	M168A7X	M168A8X	M168A9X	M168B1X	M168B2X	M168B3X	M168B4X	M168B5X	M168B6X	M168B7X	M168B8X	M168B9X	M168C1X	M168C2X	M168C4X	M170A1Y	M170A2A	M170A3	M170A4X	M170A5X	M170A6X	M170A7X	M170A8X	M170A9X	M170B1X	M170B2X	M170B4X	M170B5X	M170B6X
			SDG	CS573	RFE71	RFE96	RFF16	RFF29	RFF39	RFF49	951863	969425	978446	987857	998044	1093788	1160329	RFS58	RFT63	RFU85	RFZ94	RFB78	CS141	CS322	CS574	RFE71	RFE97	RFF16	RFF29	RFF35	RFF53	953193	971536	979428	989100	998385	1095834	1114607	1158618
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	0.8U	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	2J	1J	1U	1U	1J	1U	1U	1U	1J	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	6U	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1UJ	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	51000	-	-	-	-	-	-	35000	43000	34000	39000	49000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65000	8000	33000	60000	85000	83000	-	70000
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	6	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	-	8.9	-	-	-	-	-	-	1.3J	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	1.0U
Ethene	ug/L	N	-	1.0U	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	1.0U
Ethylbenzene	ug/L	N	700	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	2100	-	-	2200	76	4200	1900	2400	29	19	4.9J	2.0U	-	-	-	-	-	-	-	-	-	-	-	-	2.0U	7.3	3.0J	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	-	5.0U
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	0.5U	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.5U	0.8U	0.8U	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-180	MW-180	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183
			Sample Date	11/05/2009	06/22/2010	10/26/2010	09/02/2011	12/08/2011	06/28/2012	09/11/2012	08/08/2013	11/01/2013	11/01/2013	04/29/2003	09/23/2003	09/23/2004	05/27/2005	11/02/2005	06/15/2006	12/12/2006	06/08/2007	08/20/2008	06/03/2009	06/28/2011	03/20/2012	04/09/2013	09/04/2014	02/06/2018	05/09/2003	09/15/2003	02/04/2004	07/08/2004	10/21/2004	01/05/2005	05/17/2005	07/27/2005	11/29/2005	02/09/2006
			Field Sample ID	M170B7X	M170B8X-100622	M170B9X	M170C1X	M170C2X	M170C3X	M170C4X	M170C5X	D1101131	M170C6X	M179A1	M179A2	M179A3X	M179A4X	M179A5X	M179A6X	M179A7X	M179A8X	M179A9X	M179B1X	M179B2X	M179B3X	M179B4X	M179B5X	M179C5X	M180A1	M180A2	M183A1A	M183A2	M183A3X	M183A4X	M183A5X	M183A6X	M183A7X	M183A8X
			SDG	1169793	RFS48	RFS75	RFT66	RFT91	RFU94	RFV40	RFB85	CS037	CS037		RFE87	RFF25	RFF56	965777	993798	1017858	1041869	1106372	1147599	RFT37	RFU25	RFY63	CS151	CS641	RFE74	RFE86	RFE96	RFF16	RFF31	RFF35	RFF52	952987	969074	977634
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	16U	0.8U	0.8U	2U	0.8U	2U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	16U	0.8U	0.8U	2U	0.8U	2U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	16U	0.8U	0.8U	2U	0.8U	2U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2	2U	2U	2U	2U	40U	2U	2U	4U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2	2U	2U	2U	2U	40U	2U	2U	4U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	0.5U	0.5U	7	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3	9J	9J	3U	3U	60U	19	11	6U	25	25	3U	3U	16	3U	3U	5J	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3	3U	3U	3U	3U	60U	3U	3U	6U	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3	3U	3U	3U	3U	60U	3U	3U	6U	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6	30	36	37	6U	120U	20	35	110	110	87	6U	25	6U	16J	21	21	9J	6U	17J	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1700	490	26	46	0.5U	42J	24	92	140	97	26	14	5J	4	0.5U	1000	650	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	43000	51000	88000	50000	24000	75000	120000	89000	110000	110000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80000	83000	52000
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	16U	0.8U	0.8U	2U	0.8U	2U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2	0.8U	0.8U	0.8U	0.8U	16U	0.8U	0.8U	2U	0.8U	2U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	16U	0.8U	0.8U	2U	0.8U	2U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	600	510	110	200	2U	260	210	400	540	330	250	310	160	190	2U	930	660	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2	2U	2U	2U	2U	40U	2U	2U	4U	2U	4U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U
Ethene	ug/L	N	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	920	480	95	87	0.8U	68J	41	180	220	160	15	9	4J	3	0.5U	270	350	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	45	27	11	12	1U	20U	7	13	22	18	12	12	8	13	1U	61	72	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	5.0J	5.0U	10U	5.0U	5.0U	5.0U	5.0U	3.0U	3.0U	3.0U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	2.0U	5.5	4.3J	2.8J	5.9	2.0U
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	1U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	270	220	83	93	1U	79J	170	190	190	240	130	190	120	77	1U	370	270	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2	2U	2U	2U	2U	40U	2U	2U	4U	2U	4U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	16U	0.8U	0.8U	2U	0.8U	2U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	200	7	0.7U	0.7U	0.7U	14U	0.7U	0.7U	1U	0.7U	1U	0.7U	0.7U	0.5U	0.5U	260	220	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8	0.8U	0.8U	0.8U	0.8U	16U	0.8U	0.8U	2U	0.8U	2U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2	2U	2U	2U	2U	40U	2U	2U	4U	2U	4U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1	1U	1U	1U	1U	20U	1U	1U	2U	1U	2U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	3000	970	180	100	0.8U	38J	30	130	98	42	2U	0.8U	0.8U	0.5U	0.5U	2300	1900	0.8U	0.8U	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-187	MW-187	MW-187	MW-187	MW-187
			Sample Date	04/26/2006	07/07/2006	05/22/2008	07/24/2009	08/03/2010	08/23/2011	06/19/2012	08/08/2013	09/15/2016	06/15/2017	02/05/2004	07/15/2004	10/08/2004	02/23/2005	05/05/2005	07/19/2005	12/06/2005	02/17/2006	05/09/2006	07/19/2006	10/04/2007	05/28/2008	08/20/2009	08/03/2010	09/07/2011	06/28/2012	08/01/2013	08/13/2014	12/02/2015	06/16/2017	05/20/2004	06/25/2008	10/24/2008	07/14/2009	11/10/2009
			Field Sample ID	M183A9X	M183B1X	M183B2X	M183B3X	M183B4X	M183B5X	M183B6X	M183B7X	M183B8X	M183B9X	M186A1	M186A2	M186A3X	M186A4X	M186A5X	M186A6X	M186A7X	M186A8X	M186A9X	M186B1X	M186B2X	M186B3X	M186B4X	M186B5X	M186B6X	M186B8X	M186B9X	M186C1X	M186C2X	M186C4X	M187A1A	M187A2X	M187A3X	M187A4X	M187A5X
			SDG	987154	996484	1092717	1154932	RFS62	RFT62	RFU85	RFB85	CS454	CS573	RFF96	RFF16	RFF29	RFF39	RFF49	951863	970020	978621	988894	998044	1059557	1093320	1158618	RFS62	RFT67	RFU94	RFB78	CS141	CS322	CS574	GWC12	1097890	1116797	1153395	1170404
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.9U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.3U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.7J	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2U	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.4J	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5J	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	5J	3U	-	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	-	-	-	-	-	-	-	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	25	28	6UJ	-	6J	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10U	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10U	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.9U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32U	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.8J	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.8U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	2U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	82000	55000	-	-	-	-	-	-	-	-	-	-	-	-	-	5400	6400	4200J	9200	8700	15000	5400J	8400J	12000	7600J	6100J	8800J	240000	35000	12000	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	2U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	14	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	2U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2J	3J	2U
Dibromochloromethane	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	-	2U	2U	2U	2U
Ethane	ug/L	N	-	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-
Ethene	ug/L	N	-	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1J	1U
Methane	ug/L	N	NS	4.3J	2.0U	-	-	-	-	-	-	-	-	-	150	42	9.7	19	49	2.0U	39	4.8J	100	2.0U	23	44	12J	170	85	50	17000	2100	240	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	2J	3J	4J	1J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	5	0.5U	0.5U	4J	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.6U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	2U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.9U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-187	MW-187	MW-187	MW-187	MW-187	MW-187	MW-187	MW-187	MW-187	MW-187	MW-187	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188
			Sample Date	06/02/2010	06/02/2010	09/14/2010	06/14/2011	11/17/2011	04/26/2012	08/14/2012	04/11/2013	03/27/2014	09/23/2014	12/05/2014	06/25/2004	07/16/2004	10/14/2004	01/11/2005	05/17/2005	07/27/2005	12/20/2005	02/28/2006	05/16/2006	08/17/2006	10/18/2012	10/18/2012	10/18/2012	12/13/2012	12/13/2012	02/14/2013	02/14/2013	04/22/2013	04/22/2013	06/12/2013	06/12/2013	09/20/2013	09/20/2013	01/10/2014
			Field Sample ID	D0602101-100602	M187A6X-100602	M187A7X	M187A8X	M187A9X	M187B1X	M187B2X	M187B3X	M187B4X	M187B5X	M187B6X	M188A1	M188A2	M188A3X	M188A4X	M188A5X	M188A6X	M188A7X	M188A8X	M188A9X	M188B1X	D1018126	M188B2X	M188B2X	M188B3X	M188B3X	M188B4X	M188B4X	M188B5X	M188B5X	M188B6X	M188B6X	M188B7X	M188B7X	M188B8X
			SDG	RFS45	RFS45	RFS67	RFT32	RFT87	RFU49	RFV28	RFY73	CS077	CP515	CP617	RFF15	RFF16	RFF30	RFF35	RFF52	952987	971917	979761	989833	1002095	RFV81	RFV81		RFX16		RFX62		RFY85		RFZ94		CP109		CP256
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	140	75	110	72	67	36	64	67	72	58	31	32	-	24	-	20	-	20	-	0.8U	-	28	-	1J
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	90	60	85	64	57	37	59	65	69	53	43	42	-	31	-	35	-	32	-	1U	-	40	-	2J
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1UJ	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1UJ	-	1U	-	1U	-	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	3U	-	3UJ	-	3U	-	3U	-	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	3U	-	3UJ	-	3U	-	3U	-	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	3U	-	3UJ	-	3U	-	3U	-	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	7J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	6U	-	6U	-	6UJ	-	6U	-	6U	-	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	2J	0.5U	0.6J	0.5J	2J	1J	0.6J	0.5U	10	9	11	7	5	3J	6	7	7	5J	4J	4J	-	3J	-	4J	-	3J	-	0.5U	-	3J	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1UJ	-	1U	-	1U	-	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79000	83000	110000	95000	98000	-	100000	-	97000	-	120000	-	120000	-	6000J	-	100000	-	10000J
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1UJ	-	1U	-	1U	-	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	6	4J	5	5	4J	3J	7	6	6	5J	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	6	4J	6	4J	4J	2J	3J	5J	5J	4J	3J	3J	-	3J	-	3J	-	3J	-	0.8U	-	3J	-	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Cyclohexane	ug/L	N	100	4J	4J	2J	2U	2U	2J	5J	2U	2U	2U	7J	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4J	2.3J	2.8J	2.9J	100U	-	-	2.1	-	1.5	-	2	-	2.3	-	0.015J	-	2.7	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5J	2.0J	1.0U	2.2J	2.3J	-	-	3.2	-	1.6	-	2	-	2.1	-	0.036	-	2.5	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1J	1J	1U	1U	1U	1J	3J	1U	1U	1U	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	2800	4500	3700	3000	2800	4200	4700	3700	3700	-	-	2500	-	1600	-	3600	-	3000	-	9.8	-	2600	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5J	3J	5J	4J	3J	2J	3J	3J	3J	3J	1J	1J	-	0.6J	-	0.7J	-	0.7J	-	0.5U	-	0.7J	-	0.5U
Methylcyclohexane	ug/L	N	100	5J	5	2J	1U	1U	2J	8	1J	1U	1J	8	3J	4J	2J	1J	2J	1U	2J	3J	3J	2J	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	1J	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	-	0.7U	-	0.7U	-	0.7U	-	0.7U	-	0.7U	-	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	5J	3J	4J	3J	2J	1J	2J	3J	2J	2J	1U	1J	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	67	47	65	56	42	29	50	50	50	34	26	27	-	24	-	20	-	20	-	1U	-	25	-	1U
Xylene (total)	ug/L	N	1000	0.9J	2J	0.8U	1J	0.8U	1J	0.8U	0.8U	1	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	93	130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189
			Sample Date	01/10/2014	04/10/2014	04/10/2014	06/19/2014	06/19/2014	09/04/2014	09/04/2014	10/29/2014	10/29/2014	10/29/2014	09/09/2015	09/09/2015	10/20/2015	10/20/2015	02/11/2016	05/24/2016	08/10/2016	11/09/2016	05/26/2017	06/25/2004	07/19/2004	10/14/2004	01/11/2005	05/17/2005	07/27/2005	12/20/2005	02/28/2006	05/16/2006	08/17/2006	10/17/2012	10/17/2012	06/12/2013	06/12/2013	06/19/2014	06/19/2014	09/04/2014
			Field Sample ID	M188B8X	M188B9X	M188B9X	M188C1X	M188C1X	M188C2X	M188C2X	M188C3X	M188C3X	M188C3X	M188C5X	M188C5X	M188C6X	M188C6X	M188C7X	M188C8X	M188C9X	M188D1X	M188D2X	M189A1	M189A2	M189A3X	M189A4X	M189A5X	M189A6X	M189A7X	M189A8X	M189A9X	M189B1X	M189B2X	M189B2X	M189B3X	M189B3X	M189B4X	M189B4X	M189B5X
			SDG		CP310		CP372		1503787	CP491	1525660	CP571		1592537	CP837	1606860	CP894	CQ012	CQ111	CQ234	CQ431	CQ655	RFF15	RFF17	RFF30	RFF35	RFF52	952987	971917	979761	989833	1002095	RFV76		RFZ94		CP372		1503787
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	19	-	13	-	-	0.5U	-	40	-	-	6	-	2	0.5U	9	6	5	0.8J	160	180	150	110	110	130	140	130	120	150	71	-	4J	-	35	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	-	2U	-	-	2U	-	2UJ	-	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-	-
1,1-Dichloroethane	ug/L	N	50	-	32	-	21	-	-	0.5U	-	51	-	-	8	-	2	1	13	7	5	2	47	54	43	30	32	40	39	39	35	39	25	-	1J	-	11	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	-	2U	-	-	2U	-	2UJ	-	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-	-
1,2-Dibromoethane	ug/L	N	0	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	0.5U	-	0.5U	-	-	0.5UJ	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-	-
1,2-Dichloropropane	ug/L	N	1	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	1U	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	-	3U	-	-	3U	-	3UJ	-	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	3U	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	-	3U	-	-	3U	-	3UJ	-	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	3U	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	3U	-	3U	-	-	3U	-	3UJ	-	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	3U	-	-
Acetone	ug/L	N	6000	-	6U	-	6U	-	-	6U	-	6UJ	-	-	7J	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	6U	-	6U	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	3	-	2	-	-	0.5U	-	3	-	-	0.6J	-	0.5U	0.5U	1	0.5U	0.5U	0.5U	1J	2J	2J	1J	1J	1J	1J	1J	1J	1J	0.9J	-	0.5U	-	0.5J	-	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-	-
Bromoform	ug/L	N	4	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-	-
Carbon Dioxide	ug/L	N	NS	-	93000	-	85000	-	-	13000	-	94000	-	-	20000	-	99000	11000J	72000	43000	12000	13000	-	-	-	-	-	120000	100000	140000	130000	120000	150000	-	100000	-	110000	-	-
Carbon disulfide	ug/L	N	700	-	1U	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	0.5U	-	0.5U	-	-	0.5UJ	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-	-
Chlorobenzene	ug/L	N	50	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-	-
Chloroform	ug/L	N	70	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	3	-	2	-	-	0.5U	-	4	-	-	0.7J	-	0.5U	0.5U	1	0.6J	0.5J	0.5U	36	42	37	27	28	34	36	37	35	39	37	-	3J	-	21	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-	-
Cyclohexane	ug/L	N	100	-	2U	-	2U	-	-	2U	-	2UJ	-	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-	-
Dibromochloromethane	ug/L	N	1	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	0.5U	-	0.5U	-	-	0.5U	-	1UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	0.5U	-	-
Ethane	ug/L	N	-	0.098	-	2.3	-	2	0.09	-	3.00	-	3	1.70n	-	1.10n	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	100U	-	0.94	-	0.13	-	0.55	0.0080J
Ethene	ug/L	N	-	0.14	-	1.5	-	0.89	0.20	-	2.40	-	2.4	1.40n	-	1.20n	-	-	-	-	-	-	-	-	-	-	-	2.0J	2.2J	2.2J	1.3J	2.7J	-	2.2	-	0.56	-	1.4	0.02J
Ethylbenzene	ug/L	N	700	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-	-
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	1U	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	-
Methane	ug/L	N	NS	92	-	1800	-	1800	320.00	-	1800.00	-	1800	1100.00n	-	620.00n	-	-	-	-	-	-	-	1700	3000	3500	4200	2000	1900	2900	2400	1900	-	1000	-	2400	-	720	1.10
Methyl acetate	ug/L	N	7000	-	1U	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	-
Methyl-t-butyl ether	ug/L	N	70	-	0.5J	-	0.5U	-	-	0.5U	-	0.8J	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	-
Methylcyclohexane	ug/L	N	100	-	1U	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	-	2U	-	-	2U	-	2UJ	-	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	2U	-	-
Styrene	ug/L	N	100	-	1U	-	1U	-	-	1U	-	1UJ	-	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	1U	-	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-	-
Toluene	ug/L	N	600	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	-	0.7U	-	0.5U	-	-
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	0.5U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	0.5U	-	0.5U	-	-	0.5U	-	0.8J	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	18	22	17	18	16	16	18	23	19	26	11	-	1J	-	4	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	0.5U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	19	-	14	-	-	0.5U	-	25	-	-	5	-	1	0.5J	10	5	2	0.5U	98	90	83	64	69	62	79	78	70	64	52	-	4J	-	31	-	-
Xylene (total)	ug/L	N	1000	-	0.5U	-	0.5U	-	-	0.5U	-	0.5UJ	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	0.5U	-	-
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191
			Sample Date	09/04/2014	10/29/2014	10/29/2014	10/29/2014	09/09/2015	09/09/2015	09/09/2015	10/20/2015	10/20/2015	02/11/2016	05/24/2016	08/10/2016	11/09/2016	05/26/2017	06/25/2004	07/19/2004	10/14/2004	01/11/2005	05/17/2005	07/27/2005	12/20/2005	02/28/2006	05/16/2006	08/17/2006	10/17/2012	10/17/2012	06/11/2013	06/11/2013	09/09/2015	09/09/2015	10/20/2015	10/20/2015	02/11/2016	05/24/2016	08/10/2016	11/09/2016
			Field Sample ID	M189B5X	M189B6X	M189B6X	M189B6X	D0909155	M189B8X	M189B8X	M189B9X	M189B9X	M189C1X	M189C2X	M189C3X	M189C4X	M189C5X	M191A1	M191A2	M191A3X	M191A4X	M191A5X	M191A6X	M191A7X	M191A8X	M191A9X	M191B1X	M191B2X	M191B2X	M191B3X	M191B3X	M191B4X	M191B4X	M191B5X	M191B5X	M191B6X	M191B7X	M191B8X	M191B9X
			SDG	CP491	1525660	CP571		CP837	1592537	CP837	1606860	CP894	CQ012	CQ111	CQ234	CQ431	CQ655	RFF15	RFF17	RFF30	RFF35	RFF52	952987	971917	979761	989833	1002095	RFV76		RFZ93		1592537	CP837	1606860	CP894	CQ012	CQ111	CQ234	CQ431
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	Report Units	Filtered	CMI GW Action Limit	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
1,1 Dichloroethene	ug/L	N	1	19	-	41	-	50	-	50	-	51	16	46	18	37	2	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	2UJ	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	2U	-	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	7	-	13	-	16	-	15	-	16	5	13	5	10	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	2UJ	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	2U	-	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5UJ	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	3UJ	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U	6J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	-	3U	-	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	-	3UJ	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	-	3U	-	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	-	3UJ	-	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	-	-	3U	-	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	-	6UJ	-	6U	-	6U	-	6U	6U	6U	6U	6U	6U	49	24	14J	6U	10J	6U	22	27	10J	22	6U	-	6U	-	-	6U	-	6U	12J	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.7J	-	0.8J	-	0.8J	-	0.8J	0.5U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Carbon Dioxide	ug/L	N	NS	120000	-	120000	-	-	-	110000	-	160000	91000	120000	170000	140000	130000	-	-	-	-	-	30000	31000	37000	83000	91000	-	-	120000	-	-	76000	-	150000	88000	87000	100000	150000
Carbon disulfide	ug/L	N	700	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5UJ	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	13	-	25	-	29	-	28	-	29	11	28	12	23	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	4J	2J	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	-	2UJ	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	2U	-	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	-	1UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	-	-	1.10	-	1.1	-	1.60n	-	1.60n	-	-	-	-	-	-	-	-	-	-	-	2.2J	2.3J	1.9J	4.4J	100U	-	2.9	-	2.8	2.50n	-	2.10n	-	-	-	-	-
Ethene	ug/L	N	-	-	2.20	-	2.2	-	2.20n	-	2.10n	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	100U	-	0.1	-	0.018J	0.0030Un	-	0.0040Un	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	920.00	-	920	-	1600.00n	-	1200.00n	-	-	-	-	-	-	-	10000	10000	6200	10000	7000	6200	6700	19000	12000	-	12000	-	11000	12000.00n	-	7800.00n	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	2UJ	-	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	2U	-	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	-	1UJ	-	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	1U	-	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	-	0.7U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	-	0.5J	-	0.5U	-	0.5U	-	0.5J	0.5U	0.5J	0.5U	0.5J	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	3	-	4	-	7	-	7	-	8	3	5	2	5	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	18	-	33	-	37	-	37	-	34	10	28	14	17	1	1U	1U	1U	1U	1U	1U	1U	1U	1J	1U	1U	-	1U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.8U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-191	MW-192	MW-192	MW-192	MW-192	MW-192	MW-192	MW-192	MW-192	MW-192	MW-192	MW-192	MW-192	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195
			Sample Date	05/26/2017	03/23/2007	05/17/2007	12/07/2007	08/20/2008	11/13/2008	07/08/2009	11/06/2009	06/04/2010	06/28/2011	03/20/2012	02/26/2013	09/05/2014	12/14/2004	01/19/2005	04/22/2005	08/02/2005	10/04/2005	01/20/2006	04/18/2006	08/09/2006	10/27/2006	01/19/2007	05/01/2007	10/30/2007	01/08/2008	05/06/2008	07/08/2008	10/09/2008	01/27/2009	04/24/2009	08/06/2009	10/21/2009	02/04/2010	05/20/2010
			Field Sample ID	M191C1X	M192A1X	M192A2X	M192A3X	M192A4X	M192A5X	M192A6X	M192A7X	M192A8X-100604	M192A9X	M192B1X	M192B2X	M192B3X	M195A1X	M195A2	M195A3X	M195A4X	M195A5X	M195A6X	M195A7X	M195A8X	M195A9X	M195B1X	M195B2X	M195B4X	MW195B5X	M195B6X	M195B7X	M195B8X	M195B9X	M195C1X	M195C2X	M195C3X	M195C4X	M195C4X-100520
			SDG	CQ655	1030792	1038811	1068894	1106372	1120044	1152663	1170013	RFS46	RFT37	RFU25	RFX79	CS152	NFE16	NFE18	GWC19	953731	961782	975178	986041	1000961	1011913	1022362	1036141	1063353	1072349	1089841	1099601	1114369	1129788	1142037	1156644	1167395	1181531	RFS43
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	15U	3U	-	3U	-	3U	-	3U	-	3U	6J	-	3U	-	3U	-	3U	-	3U	-	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	15U	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3U	-	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	15U	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3U	-	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	15J	30U	6U	-	6U	-	6U	-	8J	-	6U	74	-	7J	-	6U	-	6U	-	6U	-	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Bromoform	ug/L	N	4	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Carbon Dioxide	ug/L	N	NS	130000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	2J	-	1U	-	1U	-	1U	-	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Chlorobenzene	ug/L	N	50	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Chloroform	ug/L	N	70	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	21	2U	2U	-	-	-	-	-	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U
Dibromochloromethane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	15	1U	1U	1U	1U	1U	1J	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	0.5U	3U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	6	5	4J	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U
Toluene	ug/L	N	600	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.7U	4U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Xylene (total)	ug/L	N	1000	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196
			Sample Date	07/23/2010	11/11/2010	03/09/2011	04/19/2011	07/19/2011	10/21/2011	01/26/2012	01/26/2012	04/12/2012	07/11/2012	10/09/2012	01/23/2013	01/23/2013	04/16/2013	07/18/2013	10/09/2013	03/04/2014	04/24/2014	07/22/2014	10/14/2014	03/31/2015	05/07/2015	07/17/2015	10/13/2015	12/14/2004	01/19/2005	04/22/2005	08/02/2005	10/04/2005	01/20/2006	04/18/2006	08/09/2006	10/31/2006	01/19/2007	04/26/2007	10/30/2007
			Field Sample ID	M195C6X	M195C7X	M195C8X	M195C9X	M195D1X	M195D2X	D0126121	M195D3X	M195D4X	M195D5X	M195D6X	D0123131	M195D7X	M195D8X	M195D9X	M195E1X	M195E2X	M195E3X	M195E4X	M195E5X	M195E6X	M195E7X	M195E8X	M195E9X	M196A1X	M196A2	M196A3X	M196A4X	M196A5X	M196A6X	M196A7X	M196A8X	M196A9X	M196B1X	M196B2X	M196B4X
			SDG	RFS57	RFS80	RFS97	RFT10	RFT43	RFT80	RFU03	RFU03	RFU41	RFV06	RFV57	RFX40	RFX40	RFY82	RFB44	CS026	CS068	CS090	CS128	CS170	CS214	CS227	CS263	CS297	NFE16	NFE18	GWC19	953731	961782	975178	986041	1000961	1012218	1022362	1035529	1063353
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	-	2U	-	2U	-	-	2U	-	2U	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	-	2U	-	2U	-	-	2U	-	2U	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	-	3U	-	3U	-	-	3U	-	3U	-	-	3U	-	4J	-	3U	-	3U	-	3U	-	3U	3U	15U	3U	-	3U	-	3U	-	3U	-	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	-	3U	-	3U	-	-	3U	-	3U	-	-	3U	-	3U	-	3U	-	3U	-	3U	-	3UJ	3U	15U	3U	-	3U	-	3U	-	3U	-	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	3U	-	3U	-	3U	-	-	3U	-	3U	-	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	3U	15U	3U	-	3U	-	3U	-	3U	-	3U	3U
Acetone	ug/L	N	6000	-	6U	-	6U	-	13J	-	-	6U	-	7J	-	-	6U	-	7J	-	10J	-	6U	-	6U	-	6U	6U	30U	17J	-	6U	-	6U	-	6U	-	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	16	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21U	-	-	-	-	-	-	-	-	-	-	-	-	20U	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
Bromoform	ug/L	N	4	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
Chlorobenzene	ug/L	N	50	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
Chloroform	ug/L	N	70	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	7J	2J	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
Cyclohexane	ug/L	N	100	-	2U	-	2U	-	2U	-	-	2U	-	2U	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	2U
Dibromochloromethane	ug/L	N	1	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	2U	-	2U	-	2U	-	-	2U	-	2U	-	-	2U	-	2U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	4U	0.8U	0.8U	4J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	3U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	-	2U	-	2U	-	-	2U	-	2U	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	2U
Styrene	ug/L	N	100	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	4U	0.7U	0.7U	5	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	2U	-	2U	-	2U	-	-	2U	-	2U	-	-	2U	-	2U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5J	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	4U	0.8U	0.8U	21	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196
			Sample Date	01/08/2008	05/06/2008	07/08/2008	10/09/2008	01/21/2009	04/24/2009	08/05/2009	10/21/2009	02/04/2010	05/20/2010	05/20/2010	07/23/2010	11/11/2010	03/08/2011	04/19/2011	07/19/2011	10/21/2011	01/26/2012	04/12/2012	07/03/2012	10/09/2012	01/23/2013	04/16/2013	07/18/2013	10/09/2013	03/04/2014	03/04/2014	04/24/2014	07/22/2014	10/14/2014	03/31/2015	05/07/2015	07/17/2015	07/17/2015	10/13/2015
			Field Sample ID	MW196B5X	MW196B6X	MW196B7X	MW196B8X	MW196B9X	M196C1X	M196C2X	M196C3X	M196C4X	D0520101	M196C4X-100520	M196C6X	M196C7X	M196C8X	M196C9X	M196D1X	M196D2X	M196D3X	M196D4X	M196D5X	M196D6X	M196D7X	M196D8X	M196D9X	M196E1X	D0304141	M196E2X	M196E3X	M196E4X	M196E5X	M196E6X	M196E7X	D0717151	M196E8X	M196E9X
			SDG	1072349	1089841	1099601	1114369	1129030	1142037	1156453	1167395	1181531	RFS43	RFS43	RFS57	RFS80	RFS96	RFT10	RFT43	RFT80	RFU03	RFU41	RFU98	RFV57	RFX40	RFY82	RFB44	CS026	CS068	CS068	CS090	CS128	CS170	CS214	CS227	CS263	CS263	CS297
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	FD	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
1,1,1-Trichloroethane	ug/L	N	30	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
1,1,2-Trichloroethane	ug/L	N	3	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	2U	-	2U	-	-	2U
1,1-Dichloroethane	ug/L	N	50	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	2U	-	2U	-	-	2U
1,2-Dibromoethane	ug/L	N	0	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
1,2-Dichloropropane	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6U	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	-	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	-	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	-	3U	-	3U	-	3U	-	-	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	-	3U	-	3U	-	3U	-	-	3UJ
4-Methyl-2-pentanone	ug/L	N	100	-	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	-	3U	-	3U	-	3U	-	-	3U
Acetone	ug/L	N	6000	-	6U	-	6U	-	6U	-	6U	-	6U	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-	-	6U	-	6U	-	6U	-	-	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22U	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Bromoform	ug/L	N	4	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	1U	-	1U	-	1U	-	2J	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	-	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Chlorobenzene	ug/L	N	50	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Chloroform	ug/L	N	70	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Cyclohexane	ug/L	N	100	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	2U	-	2U	-	-	2U
Dibromochloromethane	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	-	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	-	1U
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Methylcyclohexane	ug/L	N	100	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	2U	-	2U	-	-	2U
Styrene	ug/L	N	100	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U	-	1U	-	-	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	0.5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	0.5U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197
			Sample Date	12/22/2004	01/19/2005	04/26/2005	07/14/2005	10/06/2005	01/20/2006	04/18/2006	08/09/2006	10/31/2006	01/23/2007	05/01/2007	10/25/2007	01/15/2008	05/01/2008	07/08/2008	10/09/2008	01/21/2009	04/24/2009	08/05/2009	10/21/2009	02/03/2010	05/20/2010	07/23/2010	11/11/2010	03/08/2011	04/19/2011	07/08/2011	10/18/2011	01/26/2012	04/12/2012	07/03/2012	07/03/2012	10/09/2012	01/23/2013	04/16/2013
			Field Sample ID	M197A1X	M197A2	M197A3X	M197A4X	M197A5X	M197A6X	M197A7X	M197A8X	M197A9X	M197B1X	M197B2X	M197B4X	M197B5X	M197B6X	M197B7X	M197B8X	M197B9X	M197C1X	M197C2X	M197C3X	M197C4X	M197C4X-100520	M197C6X	M197C7X	M197C8X	M197C9X	M197D1X	M197D2X	M197D3X	M197D4X	D0703121	M197D5X	M197D6X	M197D7X	M197D8X
			SDG	NFE17	NFE18	GWC20	951288	962189	975178	986041	1000961	1012218	1022693	1036141	1062755	1073389	1089148	1099601	1114369	1129030	1142037	1156453	1167395	1181327	RFS43	RFS57	RFS80	RFS96	RFT10	RFT40	RFT79	RFU03	RFU41	RFU98	RFU98	RFV57	RFX40	RFY82
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3J	3U	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	-	3U	-	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	-	3U	-	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	-	3U	-	3U
Acetone	ug/L	N	6000	22	39	6U	-	6U	-	6U	-	6U	-	6U	6U	-	6U	-	38	-	28	-	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-	-	6U	-	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.9U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
Bromoform	ug/L	N	4	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	3J	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	2U
Styrene	ug/L	N	100	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.8U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.9U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198
			Sample Date	07/19/2013	10/08/2013	02/27/2014	04/24/2014	07/22/2014	10/14/2014	04/02/2015	05/07/2015	07/17/2015	10/13/2015	12/22/2004	01/28/2005	04/26/2005	07/14/2005	10/06/2005	01/20/2006	04/18/2006	08/09/2006	01/23/2007	05/01/2007	07/25/2007	10/25/2007	01/15/2008	05/01/2008	07/07/2008	10/10/2008	01/27/2009	04/24/2009	08/05/2009	10/21/2009	02/03/2010	05/20/2010	07/23/2010	11/11/2010	11/11/2010
			Field Sample ID	M197D9X	M197E1X	M197E2X	M197E3X	M197E4X	M197E5X	M197E6X	M197E7X	M197E8X	M197E9X	M198A1X	M198A2X	M198A3X	M198A4X	M198A5X	M198A6X	M198A7X	M198A8X	M198A9X	M198B2X	M198B3X	M198B4X	M198B5X	M198B6X	M198B7X	M198B8X	M198B9X	M198C1X	M198C2X	M198C3X	M198C4X	M198C4X-100520	M198C6X	D1111103	M198C7X
			SDG	RFB45	CS025	CS067	CS090	CS128	CS170	CS215	CS227	CS263	CS297	NFE17	NFE18	GWC20	951288	962189	975178	986041	1000961	1022693	1036141	1048553	1062755	1073389	1089148	1099601	1114607	1129788	1142037	1156453	1167395	1181327	RFS43	RFS57	RFS80	RFS80
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	8U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	8U	-	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	8U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	8U	-	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	8U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	8U	-	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	-	2U	-	2U	-	2U	-	2U	2U	10U	2U	-	2U	-	2U	-	-	2U	-	20U	-	2U	-	20U	-	2U	-	2U	-	20U	-	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	-	2U	-	2U	-	2U	-	2U	2U	10U	2U	-	2U	-	2U	-	-	2U	-	20U	-	2U	-	20U	-	2U	-	2U	-	20U	-	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	-	3U	-	3U	-	3U	-	3U	3U	15U	3U	-	3U	-	3U	-	-	3U	-	30U	-	3U	-	30U	-	3U	-	3U	-	30U	-	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	-	3U	-	3U	-	3U	-	3UJ	3U	15U	3U	-	3U	-	3U	-	-	3U	-	30U	-	3U	-	30U	-	3U	-	3U	-	30U	-	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	3U	-	3U	-	3U	-	3U	-	3U	3U	15U	3U	-	3U	-	3U	-	-	3U	-	30U	-	3U	-	30U	-	3U	-	3U	-	30U	-	3U	3U
Acetone	ug/L	N	6000	-	6U	-	6U	-	6U	-	6U	-	6U	6U	30U	6U	-	6U	-	6U	-	-	6U	-	60U	-	6U	-	60U	-	6U	-	6U	-	60U	-	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.9U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	3U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	21U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
Bromoform	ug/L	N	4	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	1U	-	1U	-	1U	-	1U	-	1U	2J	5U	1U	-	1J	-	1U	-	-	1U	-	10U	-	2J	-	10U	-	1U	-	11	-	10U	-	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
Chlorobenzene	ug/L	N	50	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	8U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	8U	-	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
Chloroform	ug/L	N	70	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	6J	2J	-	0.8J	-	0.8U	-	-	0.8U	-	8U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	8U	-	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	8U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	8U	-	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
Cyclohexane	ug/L	N	100	-	2U	-	2U	-	2U	-	2U	-	2U	2U	10U	2U	-	2U	-	2U	-	-	2U	-	20U	-	2U	-	20U	-	2U	-	2U	-	20U	-	2U	2U
Dibromochloromethane	ug/L	N	1	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	2U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	2U	10U	2U	-	2U	-	2U	-	-	2U	-	20U	-	2U	-	20U	-	2U	-	2U	-	20U	-	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	4U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	3U	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-	5U	-	0.5U	-	5U	-	0.5U	-	0.5U	-	5U	-	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	-	2U	-	2U	-	2U	-	2U	2U	10U	2U	-	2U	-	2U	-	-	2U	-	20U	-	2U	-	20U	-	2U	-	2U	-	20U	-	2U	2U
Styrene	ug/L	N	100	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	8U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	8U	-	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	4U	0.7U	0.8U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	7U	4U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.7U	0.7U	7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	8U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	8U	-	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	2U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	2U	10U	2U	-	2U	-	2U	-	-	2U	-	20U	-	2U	-	20U	-	2U	-	2U	-	20U	-	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	5U	1U	-	1U	-	1U	-	-	1U	-	10U	-	1U	-	10U	-	1U	-	1U	-	10U	-	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	4U	0.8U	0.9U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	4U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199
			Sample Date	03/08/2011	04/19/2011	07/08/2011	07/08/2011	10/18/2011	01/26/2012	04/12/2012	07/03/2012	10/09/2012	01/23/2013	04/16/2013	07/19/2013	10/08/2013	02/26/2014	04/24/2014	04/24/2014	07/22/2014	10/14/2014	04/02/2015	05/07/2015	07/17/2015	10/13/2015	12/22/2004	01/19/2005	04/28/2005	07/14/2005	10/06/2005	01/31/2006	04/13/2006	08/11/2006	10/10/2006	01/25/2007	05/08/2007	11/08/2007	01/15/2008	05/16/2008
			Field Sample ID	M198C8X	M198C9X	D0708111	M198D1X	M198D2X	M198D3X	M198D4X	M198D5X	M198D6X	M198D7X	M198D8X	M198D9X	M198E1X	M198E2X	D0424141	M198E3X	M198E4X	M198E5X	M198E6X	M198E7X	M198E8X	M198E9X	M199A1X	M199A2	M199A3X	M199A4X	M199A5X	M199A6X	M199A7X	M199A8X	M199A9X	M199B1X	M199B2X	M199B4X	M199B5X	M199B6X
			SDG	RFS96	RFT10	RFT40	RFT40	RFT79	RFU03	RFU41	RFU98	RFV57	RFX40	RFY82	RFB45	CS025	CS067	CS090	CS090	CS128	CS170	CS215	CS227	CS263	CS297	NFE17	NFE18	GWC20	951288	962189	976361	985688	1001382	1009212	1023101	1037238	1064801	1073389	1091830
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.8U	-	-	4U	-	0.8U	-	2U	-	0.8U	-	0.8U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	0.8U	-	-	4U	-	0.8U	-	2U	-	0.8U	-	0.8U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
1,1,2-Trichloroethane	ug/L	N	3	-	0.8U	-	-	4U	-	0.8U	-	2U	-	0.8U	-	0.8U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	-	-	10U	-	2U	-	4U	-	2U	-	2U	-	4U	2U	-	2U	-	10UJ	-	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U
1,1-Dichloroethane	ug/L	N	50	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	2U	1U	-	1U	-	5UJ	-	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	-	-	10U	-	2U	-	4U	-	2U	-	2U	-	4U	2U	-	2U	-	10UJ	-	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U
1,2-Dibromoethane	ug/L	N	0	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	2U	1U	-	1U	-	5UJ	-	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
1,2-Dichloropropane	ug/L	N	1	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	2U	1U	-	1U	-	5UJ	-	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	2U	1U	-	1U	-	5UJ	-	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	-	-	15U	-	3U	-	6U	-	3U	-	3U	-	6U	3U	-	3U	-	15UJ	-	3U	4J	3U	3U	-	3U	-	3U	-	3J	-	5J	3U	-	5J
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	-	-	15U	-	3U	-	6U	-	3U	-	3U	-	6U	3U	-	3U	-	15UJ	-	3UJ	3U	3U	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U
4-Methyl-2-pentanone	ug/L	N	100	-	3U	-	-	15U	-	3U	-	6U	-	3U	-	3U	-	6U	3U	-	3U	-	15UJ	-	3U	3U	3U	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U
Acetone	ug/L	N	6000	-	6U	-	-	30U	-	6U	-	12U	-	6U	-	6U	-	12U	6U	-	6U	-	30UJ	-	6U	28	6U	6U	-	6U	-	9J	-	15J	-	24	6U	-	23
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	5U	5U	3U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	3UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.9U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	21U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
Bromoform	ug/L	N	4	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1J	-	2U	1J	-	1U	-	5UJ	-	1J	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
Chlorobenzene	ug/L	N	50	-	0.8U	-	-	4U	-	0.8U	-	2U	-	0.8U	-	0.8U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
Chloroform	ug/L	N	70	-	0.8U	-	-	4U	-	0.8U	-	2U	-	0.8U	-	0.8U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	1J	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	0.8U	-	-	4U	-	0.8U	-	2U	-	0.8U	-	0.8U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
Cyclohexane	ug/L	N	100	-	2U	-	-	10U	-	2U	-	4U	-	2U	-	2U	-	4U	2U	-	2U	-	10UJ	-	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U
Dibromochloromethane	ug/L	N	1	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	2U	-	-	10U	-	2U	-	4U	-	2U	-	2U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	8U	8U	4U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	1U	0.5U	0.5U	0.5U	0.5U	3UJ	0.5UJ	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	1J	1J	0.9J	0.8U	0.8U	0.8U	4U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	2U	1U	-	1U	-	5UJ	-	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	2U	1U	-	1U	-	5UJ	-	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	-	-	3U	-	0.5U	-	1U	-	0.5U	-	0.5U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U
Methylcyclohexane	ug/L	N	100	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	2U	1U	-	1U	-	5UJ	-	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	-	-	10U	-	2U	-	4U	-	2U	-	2U	-	4U	2U	-	2U	-	10UJ	-	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U
Styrene	ug/L	N	100	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	2U	1U	-	1U	-	5UJ	-	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	0.8U	-	-	4U	-	0.8U	-	2U	-	0.8U	-	0.8U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	7U	7U	7J	0.7U	0.7U	0.7U	1U	0.7U	0.7U	0.7U	0.7U	0.7U	1U	0.5U	0.5U	0.5U	0.5U	3UJ	0.5UJ	0.5U	0.7U	0.7U	0.7U	0.8U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	4U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	0.8U	-	-	4U	-	0.8U	-	2U	-	0.8U	-	0.8U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	2U	-	-	10U	-	2U	-	4U	-	2U	-	2U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	1U	-	-	5U	-	1U	-	2U	-	1U	-	1U	-	1U	0.5U	-	0.5U	-	3UJ	-	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	8U	8U	6J	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	1U	0.5U	0.5U	0.5U	0.5U	3UJ	0.5UJ	0.5U	0.8U	0.8U	0.8U	0.9U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-2	MW-2
			Sample Date	07/11/2008	10/07/2008	01/23/2009	04/28/2009	08/11/2009	10/22/2009	01/27/2010	04/15/2010	08/05/2010	11/11/2010	11/11/2010	03/02/2011	04/12/2011	07/06/2011	10/18/2011	02/02/2012	04/05/2012	07/11/2012	10/18/2012	10/18/2012	01/29/2013	04/18/2013	07/19/2013	10/09/2013	02/20/2014	04/25/2014	07/17/2014	10/15/2014	01/23/2015	04/24/2015	07/30/2015	10/15/2015	02/09/2018	10/19/1995	01/03/1996
			Field Sample ID	M199B7X	M199B8X	M199B9X	M199C1X	M199C2X	M199C3X	M199C4X	M199C5X	M199C6X	D1111101	M199C7X	M199C8X	M199C9X	M199D1X	M199D2X	M199D3X	M199D4X	M199D5X	D1018121	M199D6X	M199D7X	M199D8X	M199D9X	M199E1X	M199E2X	M199E3X	M199E4X	M199E5X	M199E6X	M199E7X	M199E8X	M199E9X	M199F6X	MW-0002A-1	MW-0002-AY
			SDG	1100292	1113891	1129356	1142383	1157187	1167632	1180279	RFS39	RFS62	RFS80	RFS80	RFS94	RFT07	RFT39	RFT79	RFU06	RFU39	RFV06	RFV80	RFV80	RFX42	RFY95	RFB45	CS026	CS064	CS091	CS126	CS171	CS198	CS223	CS268	CS299	CS644	54399	60035
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	20U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	-
1,1-Dichloroethane	ug/L	N	50	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	20U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	-
1,2-Dibromoethane	ug/L	N	0	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	5U	5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	10U	10U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	2U	2U
1,2-Dichloropropane	ug/L	N	1	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5U	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	10U	10U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	10U	10U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	30U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3U	3U	-	7J	-	3U	-	3U	-	3U	-	5J	-	3U	3U	10U	10U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	30U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	3U	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	30U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	3U	10U	-
Acetone	ug/L	N	6000	-	60U	-	6U	-	6U	-	6U	-	6U	6U	-	6U	-	8J	-	12J	-	6U	6U	-	6U	-	6U	-	6U	-	11J	-	10J	-	6U	6U	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	37J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22U	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
Bromoform	ug/L	N	4	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	5U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
Chlorobenzene	ug/L	N	50	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	4U	4U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5UJ	-	0.5U	0.5U	-	-
Chloroform	ug/L	N	70	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	5U	5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
Cyclohexane	ug/L	N	100	-	21J	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	-
Dibromochloromethane	ug/L	N	1	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	20U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	0.5U	-	0.5U	-	0.5UJ	-	0.5U	0.5U	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	-
Methyl-t-butyl ether	ug/L	N	70	-	5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
Methylcyclohexane	ug/L	N	100	-	15J	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	20U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	0.5U	-	-
Styrene	ug/L	N	100	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	5U	5U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
Toluene	ug/L	N	600	0.7U	7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	20U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	10U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
Xylene (total)	ug/L	N	1000	0.8U	13J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	5U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-200
			Sample Date	02/23/1996	04/18/1996	10/15/2002	01/30/2003	05/26/2004	08/12/2008	10/30/2008	05/08/2009	10/27/2009	04/29/2010	07/26/2011	03/16/2012	02/26/2013	04/01/2014	04/30/1998	10/17/2002	02/11/2003	09/24/2003	05/20/2004	09/22/2004	05/25/2005	10/25/2005	05/24/2006	11/07/2006	05/18/2007	07/30/2008	05/07/2009	06/08/2010	07/20/2011	03/16/2012	03/01/2013	08/26/2014	12/04/2017	03/12/2018	12/22/2004
			Field Sample ID	MW-0002-AX	MW-0002-AZ	M002A2Y	M002A3Y	040526PMW-2	M002A4X	M002A5X	M002A6X	M002A7X	M002A8X	M002A9X	M002B1X	M002B2X	M002B3X	M020PS6	M020A1Y	M020A2Y	M020A3	M020A4A	M020A5	M020A6	M020A7	M020A8	M020A9	M020B1	M020B2X	M020B3X	M020B4X-100608	M020B5X	M020B6X	M020B7X	M020B8X	M020C2X	M020C3X	M200A1X
			SDG	60694	61449	RFE30	RFE62	PHS01	1105054	1117661	1144089	1168255	RFS40	RFT46	RFU23	RFX79	CS079	E33866	RFE33	RFE64	RFE87	RFF11	RFF25	RFF55	964663	990907	1013229	1039073	1103086	1143853	RFS46	RFT45	RFU23	RFX87	CS146	CQ913	CQ998	NFE17
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	Report Units	Filtered	CMI GW Action Limit	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
1,1 Dichloroethene	ug/L	N	1	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	0.5U	0.5U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	0.5U	0.5U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	0.5U	0.5U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	-	-	-	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	-	-	-	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1.0U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	11U	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	14.6	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	11U	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	11U	10U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	10U	10U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	0.73U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	3U	-	-	-	-	-	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	3U	-	-	-	-	-	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	3U	-	-	-	-	-	3U	3U	3U
Acetone	ug/L	N	6000	-	-	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	7J	12J	6U	6U	6U	7J	6U	7J	6U	6U	-	-	7J	-	-	-	-	-	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2.7	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U
Bromoform	ug/L	N	4	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.49U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U
Chlorobenzene	ug/L	N	50	4U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.93U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	0.5U	0.5U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U
Chloroform	ug/L	N	70	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.88U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	0.5U	0.5U	2J
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	0.5U	0.5U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U
Cyclohexane	ug/L	N	100	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	-	-	-	2U	2U	2U
Dibromochloromethane	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	-	-	-	0.5U	0.5U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.47U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	0.7J	0.7J	0.8J	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	0.5U	-	-	-	-	-	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	-	-	-	0.5U	0.5U	2U
Styrene	ug/L	N	100	5U	5U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.78U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	0.5U	0.5U	0.8U
Toluene	ug/L	N	600	5U	5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	1.9	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	4U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	-	-	-	-	-	0.5U	0.5U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	2U	-	-	-	-	-	0.5U	0.5U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	1U	-	-	-	-	-	0.5U	0.5U	1U
Xylene (total)	ug/L	N	1000	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	2.7	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200
			Sample Date	01/26/2005	04/28/2005	07/14/2005	10/18/2005	01/31/2006	04/13/2006	08/11/2006	10/10/2006	01/25/2007	05/08/2007	11/14/2007	01/17/2008	05/16/2008	07/11/2008	10/10/2008	01/23/2009	04/28/2009	08/11/2009	10/22/2009	01/27/2010	04/15/2010	08/05/2010	11/11/2010	03/02/2011	04/12/2011	07/06/2011	10/18/2011	02/02/2012	04/05/2012	07/11/2012	07/11/2012	10/18/2012	01/29/2013	04/18/2013	07/19/2013	10/09/2013
			Field Sample ID	M200A2X	M200A3X	M200A4X	M200A5X	M200A6X	M200A7X	M200A8X	M200A9X	M200B1X	M200B2X	M200B4X	M200B5X	M200B6X	M200B7X	M200B8X	M200B9X	M200C1X	M200C2X	M200C3X	M200C4X	M200C5X	M200C6X	M200C7X	M200C8X	M200C9X	M200D1X	M200D2X	M200D3X	M200D4X	D0711121	M200D5X	M200D6X	M200D7X	M200D8X	M200D9X	M200E1X
			SDG	NFE18	GWC20	951288	963655	976361	985688	1001382	1009212	1023101	1037238	1065612	1073788	1091830	1100292	1114607	1129356	1142383	1157187	1167632	1180279	RFS39	RFS62	RFS80	RFS94	RFT07	RFT39	RFT79	RFU06	RFU39	RFV06	RFV06	RFV80	RFX42	RFY95	RFB45	CS026
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	2U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	-	0.8U	-	-	0.8U	-	0.8U	-	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	2U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	-	0.8U	-	-	0.8U	-	0.8U	-	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	2U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	-	0.8U	-	-	0.8U	-	0.8U	-	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	-	2U	-	2U	-	2U	-	2U	4U	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	10U	-	2U	-	-	2U	-	2U	-	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	-	2U	-	2U	-	2U	-	2U	4U	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	10U	-	2U	-	-	2U	-	2U	-	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5U
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	-	3U	-	3U	-	3U	-	3U	6U	-	3U	-	30U	-	3U	-	3U	-	3U	-	3U	-	3U	-	15U	-	3U	-	-	3U	-	3U	-	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	-	3U	-	3U	-	3U	-	3U	6U	-	3U	-	30U	-	3U	-	3U	-	3U	-	3U	-	3U	-	15U	-	3U	-	-	3U	-	3U	-	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	-	3U	-	3U	-	3U	-	3U	6U	-	3U	-	30U	-	3U	-	3U	-	3U	-	3U	-	3U	-	15U	-	3U	-	-	3U	-	3U	-	3U
Acetone	ug/L	N	6000	6U	6U	-	6U	-	6U	-	6U	-	6U	12U	-	6U	-	60U	-	6U	-	6U	-	6U	-	6U	-	6U	-	30U	-	6U	-	-	6U	-	6U	-	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.9U	0.5U	0.5U	0.5U	0.7J	0.5U	0.5U	0.5U	1U	3U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21U
Bromodichloromethane	ug/L	N	1	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
Bromoform	ug/L	N	4	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	2U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	-	0.8U	-	-	0.8U	-	0.8U	-	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
Chloroform	ug/L	N	70	1J	0.9J	-	0.8U	-	0.8U	-	0.8U	-	0.8U	2U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	-	0.8U	-	-	0.8U	-	0.8U	-	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	2U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	-	0.8U	-	-	0.8U	-	0.8U	-	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
Cyclohexane	ug/L	N	100	2U	2U	-	2U	-	2U	-	2U	-	2U	4U	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	10U	-	2U	-	-	2U	-	2U	-	2U
Dibromochloromethane	ug/L	N	1	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	-	2U	-	2U	-	2U	-	2U	4U	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	10U	-	2U	-	-	2U	-	2U	-	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	1J	0.9J	0.8U	2U	4U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1U	-	0.5U	-	5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	3U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	-	2U	-	2U	-	2U	-	2U	4U	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	10U	-	2U	-	-	2U	-	2U	-	2U
Styrene	ug/L	N	100	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	2U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	-	0.8U	-	-	0.8U	-	0.8U	-	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.8U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	1U	4U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	5J	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	2U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	-	0.8U	-	-	0.8U	-	0.8U	-	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	-	2U	-	2U	-	2U	-	2U	4U	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	10U	-	2U	-	-	2U	-	2U	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	-	1U	-	1U	-	1U	-	1U	2U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	-	1U	-	1U	-	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.9U	0.8U	0.8U	0.8U	1J	0.8U	0.8U	0.8U	2U	6J	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201
			Sample Date	02/20/2014	04/25/2014	07/17/2014	10/15/2014	01/23/2015	04/24/2015	07/30/2015	10/15/2015	02/09/2018	02/09/2018	05/04/2005	08/02/2005	10/20/2005	01/31/2006	04/26/2006	08/17/2006	10/12/2006	01/31/2007	05/01/2007	07/26/2007	11/13/2007	05/08/2008	07/09/2008	10/08/2008	02/12/2009	04/30/2009	08/18/2009	10/20/2009	02/05/2010	04/20/2010	08/05/2010	11/10/2010	03/04/2011	04/21/2011	07/14/2011	07/14/2011
			Field Sample ID	M200E2X	M200E3X	M200E4X	M200E5X	M200E6X	M200E7X	M200E8X	M200E9X	D0209181	M200F6X	M201A1X	M201A2X	M201A5X	M201A6X	M201A7X	M201A8X	M201A9X	M201B1X	M201B2X	M201B3X	M201B4X	M201B5X	M201B6X	M201B8X	M201B9X	M201C1X	M201C2X	M201C3X	M201C4X	M201C5X	M201C6X	M201C7X	M201C8X	M201C9X	D0714111	M201D1X
			SDG	CS064	CS091	CS126	CS171	CS198	CS223	CS268	CS299	CS644	CS644	942145	953731	964074	976361	987154	1002094	1009631	1023785	1036141	1048920	1065392	1090330	1100065	1114122	1132133	1142830	1158153	1167217	1181719	RFS39	RFS62	RFS78	RFS95	RFT11	RFT42	RFT42
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	-	2U	-	4UJ	-	2UJ	2UJ	2UJ	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-
1,1-Dichloroethane	ug/L	N	50	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	-	1U	-	2UJ	-	1UJ	1UJ	1UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	-	2U	-	4UJ	-	2UJ	2UJ	2UJ	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-
1,2-Dibromoethane	ug/L	N	0	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	-	1U	-	2UJ	-	1UJ	1UJ	1UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
1,2-Dichloropropane	ug/L	N	1	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	-	1U	-	2UJ	-	1UJ	1UJ	1UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	1U	-	1U	-	2UJ	-	1UJ	1UJ	1UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	-	3U	-	6UJ	-	3UJ	3UJ	3UJ	3U	-	5J	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	-	3U	-	6UJ	-	3UJ	3UJ	3UJ	3U	-	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	3U	-	3U	-	6UJ	-	3UJ	3UJ	3UJ	3U	-	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	-
Acetone	ug/L	N	6000	-	6U	-	6U	-	12UJ	-	6UJ	6UJ	6UJ	6U	-	26	-	6U	-	6U	-	6U	-	6U	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1UJ	0.5U	0.5UJ	0.5UJ	0.5UJ	0.5U	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
Bromoform	ug/L	N	4	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	1U	-	1U	-	2UJ	-	1UJ	1UJ	1UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
Chlorobenzene	ug/L	N	50	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
Chloroform	ug/L	N	70	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
Cyclohexane	ug/L	N	100	-	2U	-	2U	-	4UJ	-	2UJ	2UJ	2UJ	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-
Dibromochloromethane	ug/L	N	1	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.5U	0.5U	0.5U	0.5U	1UJ	0.5U	0.5UJ	0.5UJ	0.5UJ	3J	8	6	3J	1	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	1U	-	1U	-	2UJ	-	1UJ	1UJ	1UJ	1J	-	2J	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	-	1U	-	2UJ	-	1UJ	1UJ	1UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	0.9J	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-
Methylcyclohexane	ug/L	N	100	-	1U	-	1U	-	2UJ	-	1UJ	1UJ	1UJ	2J	-	1U	-	1U	-	1J	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	-	2U	-	4UJ	-	2UJ	0.5UJ	0.5UJ	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-
Styrene	ug/L	N	100	-	1U	-	1U	-	2UJ	-	1UJ	1UJ	1UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-
Toluene	ug/L	N	600	0.7U	0.5U	0.5U	0.5U	0.5U	1UJ	0.5U	0.5UJ	0.5UJ	0.5UJ	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	0.5U	-	0.5U	-	1UJ	-	0.5UJ	0.5UJ	0.5UJ	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.5U	0.5U	0.5U	0.5U	1UJ	0.5U	0.5UJ	0.5UJ	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202
			Sample Date	10/11/2011	10/11/2011	01/31/2012	04/11/2012	04/11/2012	07/10/2012	10/16/2012	01/31/2013	04/23/2013	07/23/2013	10/15/2013	10/15/2013	03/18/2014	05/15/2014	07/18/2014	10/10/2014	01/21/2015	04/24/2015	07/30/2015	10/14/2015	02/14/2018	12/29/2004	01/28/2005	05/04/2005	08/04/2005	10/20/2005	01/31/2006	04/26/2006	08/15/2006	10/11/2006	01/31/2007	05/03/2007	08/02/2007	11/13/2007	05/08/2008	07/10/2008
			Field Sample ID	D1011111	M201D2X	M201D3X	D0411121	M201D4X	M201D5X	M201D6X	M201D7X	M201D8X	M201D9X	D1015132	M201E1X	M201E2X	M201E3X	M201E4X	M201E5X	M201E6X	M201E7X	M201E8X	M201E9X	M201F6X	M202A1X	M202A2X	M202A3X	M202A4X	M202A5X	M202A6X	M202A7X	M202A8X	M202A9	M202B1X	M202B2X	M202B3X	M202B4X	M202B5X	M202B6X
			SDG	RFT77	RFT77	RFU04	RFU40	RFU40	RFV02	RFV69	RFX43	RFZ04	RFB48	CS028	CS028	CS074	CS098	CS127	CS169	CS197	CS223	CS268	CS298	CS646	NFE17	NFE18	942145	954105	964074	976361	987154	1001693	1009631	1023785	1036614	1049722	1065392	1090330	1100065
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	FD	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	0.8U	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	0.8U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	0.8U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	-	2U	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	-	10U	2U	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	-	2U	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	-	10U	2U	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
1,2-Dichloropropane	ug/L	N	1	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	-	3U	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3U	3U	3U	15U	3U	-	3U	-	3U	-	3U	-	3U	-	15U	3U	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	-	3U	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3UJ	3U	3U	15U	3U	-	3U	-	3U	-	3U	-	3U	-	15U	3U	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	-	3U	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-	3U	-	3UJ	3U	3U	15U	3U	-	3U	-	3U	-	3U	-	3U	-	15U	3U	-
Acetone	ug/L	N	6000	6U	6U	-	6U	6U	-	6U	-	6U	-	6U	6U	-	6U	-	6U	-	6U	-	6U	6UJ	6U	30U	6U	-	6U	-	6U	-	6U	-	6U	-	30U	6U	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.7J	0.5U	0.5U	3U	0.5U	0.5U	0.6J	0.5U	0.6J	1U	3U	0.6J	5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	21U	22U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
Bromoform	ug/L	N	4	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5UJ	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	0.8U	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-	0.5UJ	-	0.5UJ	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
Chloroform	ug/L	N	70	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	0.8U	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	0.8U	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
Cyclohexane	ug/L	N	100	2U	2U	-	2U	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	2U	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	-	10U	2U	-
Dibromochloromethane	ug/L	N	1	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	-	2U	2U	-	2U	-	2U	-	2U	2U	-	0.5U	-	0.5U	-	0.5UJ	-	0.5U	0.5U	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	-	10U	2U	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	4U	0.8J	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	4U	0.8U	8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	3U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	3U	0.5U	-
Methylcyclohexane	ug/L	N	100	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	-	2U	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-	2U	-	2U	0.5U	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	-	10U	2U	-
Styrene	ug/L	N	100	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-	1U	-	1U	1U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	0.8U	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	4U	0.7U	0.7U	0.7U	4U	0.7U	0.7U	0.7U	0.7U	0.7U	2U	4U	0.7U	7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	-	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	4U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	0.8U	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	-	2U	2U	-	2U	-	2U	-	2U	2U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	2U	10U	2U	-	2U	-	2U	-	2U	-	2U	-	10U	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	-	1U	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	1U	5U	1U	-	1U	-	1U	-	1U	-	1U	-	5U	1U	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	4U	1J	0.8U	0.8U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	4U	0.8U	8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203
			Sample Date	10/08/2008	02/12/2009	04/30/2009	08/18/2009	10/20/2009	02/05/2010	04/20/2010	08/05/2010	11/10/2010	03/04/2011	04/21/2011	07/14/2011	10/11/2011	01/31/2012	04/11/2012	07/10/2012	10/16/2012	01/31/2013	04/23/2013	07/23/2013	10/15/2013	03/18/2014	05/15/2014	07/18/2014	10/10/2014	01/21/2015	04/24/2015	07/30/2015	10/14/2015	02/14/2018	04/28/2004	12/29/2004	01/26/2005	08/04/2005	10/20/2005	01/26/2006
			Field Sample ID	M202B8X	M202B9X	M202C1X	M202C2X	M202C3X	M202C4X	M202C5X	M202C6X	M202C7X	M202C8X	M202C9X	M202D1X	M202D2X	M202D3X	M202D4X	M202D5X	M202D6X	M202D7X	M202D8X	M202D9X	M202E1X	M202E2X	M202E3X	M202E4X	M202E5X	M202E6X	M202E7X	M202E8X	M202E9X	M202F6X	M203A3X	M203A1X	M203A2X	M203A4X	M203A5X	M203A6X
			SDG	1114122	1132133	1142830	1158153	1167217	1181719	RFS39	RFS62	RFS78	RFS95	RFT11	RFT42	RFT77	RFU04	RFU40	RFV02	RFV69	RFX43	RFZ04	RFB48	CS028	CS074	CS098	CS127	CS169	CS197	CS223	CS268	CS298	CS646	GWC20	NFE17	NFE18	954105	964074	975859
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	0.8U	0.8U	0.8U	-	0.8U	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	0.8U	0.8U	0.8U	-	0.8U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	0.8U	0.8U	0.8U	-	0.8U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	10U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	4UJ	-	10U	2UJ	2U	2U	2U	-	2U	-
1,1-Dichloroethane	ug/L	N	50	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	2UJ	-	5U	1UJ	1U	1U	1U	-	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	10U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	4UJ	-	10U	2UJ	2U	2U	2U	-	2U	-
1,2-Dibromoethane	ug/L	N	0	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	2UJ	-	5U	1UJ	1U	1U	1U	-	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-
1,2-Dichloropropane	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	2UJ	-	5U	1UJ	1U	1U	1U	-	1U	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	2UJ	-	5U	1UJ	1U	1U	1U	-	1U	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	15U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	6UJ	-	15U	3UJ	3U	3J	3U	-	3U	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	15U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	6UJ	-	15UJ	3UJ	3U	3U	3U	-	3U	-
4-Methyl-2-pentanone	ug/L	N	100	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	15U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	6UJ	-	15UJ	3UJ	3U	3U	3U	-	3U	-
Acetone	ug/L	N	6000	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-	30U	-	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-	12UJ	-	30U	6UJ	7J	17J	6U	-	9J	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	1U	1J	1J	1J	2J	2J	1J	1J	2J	2J	2J	3U	2J	2J	1J	2J	2J	2J	1J	1J	0.8J	0.9J	1	1	0.6J	1UJ	0.6J	3U	0.5UJ	3J	7	8	1J	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-
Bromoform	ug/L	N	4	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	1UJ	-	3UJ	0.5UJ	1U	1U	1U	-	1U	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	2UJ	-	5U	1UJ	1U	1U	1U	-	1U	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-
Chlorobenzene	ug/L	N	50	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	0.8U	0.8U	0.8U	-	0.8U	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	1UJ	-	3UJ	0.5UJ	1U	1U	1U	-	1U	-
Chloroform	ug/L	N	70	0.8U	-	0.8U	-	0.8U	-	0.8U	-	5J	-	0.8U	-	4U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	0.8U	0.8U	0.8U	-	0.8U	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	0.8U	0.8U	0.8U	-	0.8U	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-
Cyclohexane	ug/L	N	100	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	10U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	4UJ	-	10U	2UJ	2U	2U	2U	-	2U	-
Dibromochloromethane	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	10U	-	2U	-	2U	-	2U	-	2U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	2U	2U	2U	-	2U	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	2U	1J	1J	1J	2J	2J	1J	1J	3J	3J	3J	4U	3J	3J	2J	3J	3J	2J	2J	2J	1J	1	1	2	0.8J	1UJ	0.9J	3U	0.5UJ	2J	3J	5	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	2UJ	-	5U	1UJ	2J	2J	2J	-	1U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	2UJ	-	5U	1UJ	1U	1U	1U	-	1U	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	3U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	0.8J	0.6J	0.5U	-	0.5U	-
Methylcyclohexane	ug/L	N	100	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	2UJ	-	5U	1UJ	1U	1U	1U	-	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	10U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	4UJ	-	10U	0.5UJ	2U	2U	2U	-	2U	-
Styrene	ug/L	N	100	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	2UJ	-	5U	1UJ	1U	1U	1U	-	1U	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	0.8U	0.8U	0.8U	-	0.8U	-
Toluene	ug/L	N	600	0.7U	2U	1J	1J	2J	2J	2J	2J	1J	3J	3J	3J	6J	3J	3J	2J	3J	2J	3J	2J	2J	1J	1	1	1	0.8J	1UJ	0.7J	3U	0.5UJ	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	4U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	0.8U	0.8U	0.8U	-	0.8U	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	10U	-	2U	-	2U	-	2U	-	2U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	2U	2U	2U	-	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	5U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	1UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-
Xylene (total)	ug/L	N	1000	0.8U	2U	1J	3J	3J	4J	5	4J	3J	7	6	6	5J	7	7	5J	7	6	6	5J	5	3J	3	3	4	2	1UJ	2	3U	0.5UJ	3J	7	7	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203
			Sample Date	04/20/2006	08/15/2006	10/12/2006	01/25/2007	05/03/2007	07/31/2007	11/06/2007	03/13/2008	05/08/2008	07/10/2008	10/07/2008	02/12/2009	02/12/2009	04/30/2009	08/14/2009	10/20/2009	02/03/2010	04/20/2010	07/27/2010	11/10/2010	03/04/2011	04/14/2011	07/14/2011	10/11/2011	01/31/2012	04/11/2012	07/10/2012	10/16/2012	01/31/2013	04/23/2013	07/23/2013	10/15/2013	03/18/2014	04/22/2014	07/18/2014	10/10/2014
			Field Sample ID	M203A7X	M203A8X	M203A9X	M203B1X	M203B2X	M203B3X	M203B4X	M203B5X	M203B6X	M203B7X	M203B8X	D0212091	M203B9X	M203C1X	M203C2X	M203C3X	M203C4X	M203C5X	M203C6X	M203C7X	M203C8X	M203C9X	M203D1X	M203D2X	M203D3X	M203D4X	M203D5X	M203D6X	M203D7X	M203D8X	M203D9X	M203E1X	M203E2X	M203E3X	M203E4X	M203E5X
			SDG	986437	1001693	1009631	1023101	1036614	1049322	1064326	1081557	1090330	1100065	1113891	1132133	1132133	1142830	1157773	1167217	1181327	RFS39	RFS59	RFS78	RFS95	RFT08	RFT42	RFT77	RFU04	RFU40	RFV02	RFV69	RFX43	RFZ04	RFB48	CS028	CS074	CS089	CS127	CS169
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	2U	-	2U	-	2U	-	2U	-	20U	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U
1,1-Dichloroethane	ug/L	N	50	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	2U	-	2U	-	2U	-	2U	-	20U	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U
1,2-Dibromoethane	ug/L	N	0	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U
1,2-Dichloropropane	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5U	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	3U	-	3U	-	3U	-	3U	-	30U	-	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	-	3U	-	3U	-	3U	-	3U	-	30U	-	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	-	3U	-	3U	-	3U	-	3U	-	30U	-	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U
Acetone	ug/L	N	6000	6U	-	6U	-	6U	-	6U	-	6U	-	60U	-	-	6U	-	28	-	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21U	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U
Bromoform	ug/L	N	4	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U
Chlorobenzene	ug/L	N	50	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U
Chloroform	ug/L	N	70	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U
Cyclohexane	ug/L	N	100	2U	-	2U	-	2U	-	2U	-	2U	-	20U	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U
Dibromochloromethane	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	-	2U	-	2U	-	2U	-	2U	-	20U	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	0.5U	-	0.5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Methylcyclohexane	ug/L	N	100	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	2U	-	2U	-	2U	-	2U	-	20U	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U
Styrene	ug/L	N	100	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	-	2U	-	2U	-	2U	-	2U	-	20U	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	0.5U	-	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-203	MW-203	MW-203	MW-203	MW-203	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204
			Sample Date	01/21/2015	04/29/2015	07/28/2015	10/14/2015	02/14/2018	12/29/2004	01/28/2005	04/28/2005	08/04/2005	10/11/2005	01/26/2006	04/20/2006	08/15/2006	10/12/2006	01/25/2007	05/03/2007	08/16/2007	11/06/2007	03/13/2008	03/13/2008	05/14/2008	07/10/2008	10/07/2008	02/12/2009	04/30/2009	08/14/2009	10/20/2009	02/03/2010	04/20/2010	07/27/2010	11/10/2010	03/04/2011	04/14/2011	07/14/2011	10/11/2011	01/31/2012
			Field Sample ID	M203E6X	M203E7X	M203E8X	M203E9X	M203F6X	M204A1X	M204A2X	M204A3X	M204A4X	M204A5X	M204A6X	M204A7X	M204A8X	M204A9X	M204B1X	M204B2X	M204B3X	M204B4X	D0313081	M204B5X	M204B6X	M204B7X	M204B8X	M204B9X	M204C1X	M204C2X	M204C3X	M204C4X	M204C5X	M204C6X	M204C7X	M204C8X	M204C9X	M204D1X	M204D2X	M204D3X
			SDG	CS197	CS224	CS267	CS298	CS646	NFE17	NFE18	GWC20	954105	962699	975859	986437	1001693	1009631	1023101	1036614	1051887	1064326	1081557	1081557	1091362	1100065	1113891	1132133	1142830	1157773	1167217	1181327	RFS39	RFS59	RFS78	RFS95	RFT08	RFT42	RFT77	RFU04
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-
1,1,1-Trichloroethane	ug/L	N	30	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	0.5U	-	0.5U	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
1,1,2-Trichloroethane	ug/L	N	3	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	-	2U	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	20U	-	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-
1,1-Dichloroethane	ug/L	N	50	-	0.5U	-	0.5U	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	-	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	-	2U	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	20U	-	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-
1,2-Dibromoethane	ug/L	N	0	-	0.5U	-	0.5U	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	-	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	0.5U	-	0.5U	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
1,2-Dichloropropane	ug/L	N	1	-	0.5U	-	0.5U	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	-	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	1U	-	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	-	3U	3U	3U	3U	3U	-	3U	-	3U	-	3U	-	3U	-	30U	-	-	3U	-	30U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	-	3UJ	3U	3U	3U	3U	-	3U	-	3U	-	3U	-	3U	-	30U	-	-	3U	-	30U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-
4-Methyl-2-pentanone	ug/L	N	100	-	3U	-	3UJ	3U	3U	3U	3U	-	3U	-	3U	-	3U	-	3U	-	30U	-	-	3U	-	30U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-
Acetone	ug/L	N	6000	-	6U	-	6U	6UJ	6U	6U	6U	-	6U	-	6U	-	6U	-	6U	-	60U	-	-	6U	-	60U	-	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	0.5U	-	0.5U	0.5U	7	5J	2J	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
Bromoform	ug/L	N	4	-	0.5U	-	0.5U	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	0.5U	-	0.5UJ	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	1U	-	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	0.5U	-	0.5U	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
Chlorobenzene	ug/L	N	50	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	0.5U	-	0.5UJ	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
Chloroform	ug/L	N	70	-	0.5U	-	0.5U	0.5U	24	17	4J	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	0.5U	-	0.5U	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-
cis-1,3-Dichloropropene	ug/L	N	1	-	0.5U	-	0.5U	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
Cyclohexane	ug/L	N	100	-	2U	-	2U	2U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	20U	-	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-
Dibromochloromethane	ug/L	N	1	-	0.5U	-	0.5U	0.5U	1J	1U	3J	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	0.5U	-	0.5U	0.5U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	20U	-	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	1U	-	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	-	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5J	-	0.5U	-	0.5U	-	0.5U	-	5U	-	-	0.5U	-	5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Methylcyclohexane	ug/L	N	100	-	1U	-	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	-	2U	0.5U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	20U	-	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-
Styrene	ug/L	N	100	-	1U	-	1U	1U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	7U	7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-
trans-1,3-Dichloropropene	ug/L	N	1	-	0.5U	-	0.5U	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	0.5U	-	0.5U	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	0.5U	-	0.5U	0.5U	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	20U	-	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	0.5U	-	0.5U	0.5U	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205
			Sample Date	04/11/2012	07/10/2012	10/16/2012	01/31/2013	04/23/2013	07/23/2013	10/15/2013	03/18/2014	04/22/2014	07/23/2014	10/10/2014	01/21/2015	04/29/2015	04/29/2015	07/28/2015	10/14/2015	02/14/2018	12/30/2004	01/26/2005	04/26/2005	07/12/2005	10/11/2005	01/26/2006	04/13/2006	08/11/2006	10/10/2006	01/23/2007	04/26/2007	07/25/2007	11/01/2007	01/25/2008	05/14/2008	07/11/2008	10/07/2008	01/23/2009	04/22/2009
			Field Sample ID	M204D4X	M204D5X	M204D6X	M204D7X	M204D8X	M204D9X	M204E1X	M204E2X	M204E3X	M204E4X	M204E5X	M204E6X	D0429151	M204E7X	M204E8X	M204E9X	M204F6X	M205A1X	M205A2X	M205A3X	M205A4X	M205A5X	M205A6X	M205A7X	M205A8X	M205A9X	M205B1X	M205B2X	M205B3X	M205B4X	M205B5X	M205B6X	M205B7X	M205B8X	M205B9X	M205C1X
			SDG	RFU40	RFV02	RFV69	RFX43	RFZ04	RFB48	CS028	CS074	CS089	CS129	CS169	CS197	CS224	CS224	CS267	CS298	CS646	NFE17	NFE18	GWC20	950875	962699	975859	985688	1001382	1009212	1022693	1035529	1048553	1063753	1074855	1091362	1100292	1113891	1129356	1141708
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	Report Units	Filtered	CMI GW Action Limit	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
1,1 Dichloroethene	ug/L	N	1	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2UJ	-	10U	2UJ	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	20U	-	2U
1,1-Dichloroethane	ug/L	N	50	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1UJ	-	5U	1UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2UJ	-	10U	2UJ	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	20U	-	2U
1,2-Dibromoethane	ug/L	N	0	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1UJ	-	5U	1UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
1,2-Dichloropropane	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1UJ	-	5U	1UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1UJ	-	5U	1UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	3UJ	-	15U	3UJ	3U	3U	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	30U	-	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	3UJ	-	15UJ	3UJ	3U	3U	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	30U	-	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	3UJ	-	15UJ	3UJ	3U	3U	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	30U	-	3U
Acetone	ug/L	N	6000	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-	6U	6UJ	-	30U	6UJ	7J	6U	10J	-	9J	-	6U	-	8J	-	6U	-	7J	-	9J	-	60U	-	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	1UJ	3U	0.5UJ	43	22	57	34	24	36	69	38	21	7	70	47	13	10	37	20	5U	12	33
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	21U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
Bromoform	ug/L	N	4	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3UJ	0.5UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1UJ	-	5U	1UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
Chlorobenzene	ug/L	N	50	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3UJ	0.5UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
Chloroform	ug/L	N	70	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
Cyclohexane	ug/L	N	100	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2UJ	-	10U	2UJ	6	2U	5	-	5J	-	2J	-	5	-	5J	-	6	-	7	-	20U	-	3J
Dibromochloromethane	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	-	2U	-	2U	-	2U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	20U	-	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	1UJ	3U	0.5UJ	9	2J	12	0.8U	6	3J	5	5	3J	2J	4J	5J	2J	1J	2J	1J	8U	0.8U	2J
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1UJ	-	5U	1UJ	2J	1U	4J	-	3J	-	2J	-	2J	-	1U	-	1J	-	1J	-	10U	-	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1UJ	-	5U	1UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	5U	-	0.5U
Methylcyclohexane	ug/L	N	100	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1UJ	-	5U	1UJ	4J	1U	4J	-	4J	-	1J	-	4J	-	2J	-	3J	-	2J	-	10U	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2UJ	-	10U	2UJ	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	20U	-	2U
Styrene	ug/L	N	100	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1UJ	-	5U	1UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	0.8U
Toluene	ug/L	N	600	0.7U	1U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	1UJ	3U	0.5UJ	0.7U	0.7U	1J	0.8U	0.7U	0.7U	0.7U	0.8J	0.7U	0.7U	0.7U	1J	0.7U	0.7U	0.7U	0.8J	7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	0.8U	0.8U	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	8U	-	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	-	2U	-	2U	-	2U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	2U	2U	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	20U	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	-	1U	-	1U	-	1U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	3U	0.5UJ	1U	1U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	10U	-	1U
Xylene (total)	ug/L	N	1000	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	1UJ	3U	0.5UJ	4J	0.8U	5	4J	2J	2J	2J	2J	2J	0.8U	2J	1J	1J	1J	0.9J	0.9J	8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206
			Sample Date	08/04/2009	10/22/2009	01/27/2010	04/22/2010	07/22/2010	10/29/2010	02/24/2011	04/15/2011	07/06/2011	10/14/2011	02/01/2012	04/05/2012	07/12/2012	10/11/2012	02/05/2013	05/08/2013	07/25/2013	10/16/2013	02/20/2014	05/02/2014	05/02/2014	07/23/2014	10/01/2014	10/01/2014	01/15/2015	04/29/2015	07/28/2015	10/15/2015	02/08/2018	12/30/2004	01/26/2005	04/26/2005	07/12/2005	10/11/2005	01/26/2006	04/13/2006
			Field Sample ID	M205C2X	M205C3X	M205C4X	M205C5X	M205C6X	M205C7X	M205C8X	M205C9X	M205D1X	M205D2X	M205D3X	M205D4X	M205D5X	M205D6X	M205D7X	M205D8X	M205D9X	M205E1X	M205E2X	D0502141	M205E3X	M205E4X	D1001141	M205E5X	M205E6X	M205E7X	M205E8X	M205E9X	M205F6X	M206A1X	M206A2X	M206A3X	M206A4X	M206A5X	M206A6X	M206A7X
			SDG	1156238	1167632	1180279	RFS39	RFS57	RFS76	RFS91	RFT09	RFT39	RFT78	RFU05	RFU39	RFV08	RFV63	RFX45	RFZ31	RFB73	CS029	CS064	CS093	CS093	CS129	CS164	CS164	CS195	CS224	CS267	CS299	CS643	NFE17	NFE18	GWC20	950875	962699	975859	985688
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	4U	-	0.8U	-	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	4U	-	0.8U	-	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	5U	-	1U	-	1U
1,1,2-Trichloroethane	ug/L	N	3	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	4U	-	0.8U	-	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	2U	-	2U	-	2U	2U	2U	2U	10U	-	2U	-	2U
1,1-Dichloroethane	ug/L	N	50	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	5U	-	1U	-	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	1U	-	1U	-	1U	1U	1U	1U	5U	-	1U	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	2U	-	2U	-	2U	2U	2U	2U	10U	-	2U	-	2U
1,2-Dibromoethane	ug/L	N	0	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	5U	-	1U	-	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	1U	-	1U	-	1U	1U	1U	1U	5U	-	1U	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	5U	-	1U	-	1U
1,2-Dichloropropane	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	5U	-	1U	-	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	1U	-	1U	-	1U	1U	1U	1U	5U	-	1U	-	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	1U	-	1U	-	1U	1U	1U	1U	5U	-	1U	-	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	3U	-	3U	-	3U	3U	3U	3U	15U	-	3U	-	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	3U	-	3U	-	3U	3U	3U	3U	15U	-	3U	-	3U
4-Methyl-2-pentanone	ug/L	N	100	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	3U	-	3U	-	3U	3U	3U	3U	15U	-	3U	-	3U
Acetone	ug/L	N	6000	-	6U	-	6U	-	6U	-	8J	-	6U	-	9J	-	9J	-	6U	-	6U	-	6U	6U	-	7J	6U	-	6U	-	13J	6U	6U	6U	30U	-	6U	-	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3J	4J	8	22	2J	0.9J	8	25	7	4J	2J	6	1J	2J	4J	23	4J	0.5U	3J	17	16	4	1J	0.9J	5	12	2J	0.6J	0.9J	0.5U	0.5U	3U	0.9U	0.5U	3U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	5U	-	1U	-	1U
Bromoform	ug/L	N	4	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	5U	-	1U	-	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	5U	-	1U	-	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	1U	-	1U	-	1U	1U	1U	1U	5U	-	1U	-	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	5U	-	1U	-	1U
Chlorobenzene	ug/L	N	50	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	4U	-	0.8U	-	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	5U	-	1U	-	1U
Chloroform	ug/L	N	70	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	3J	0.8U	4U	-	0.8U	-	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	5U	-	1U	-	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	4U	-	0.8U	-	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	5U	-	1U	-	1U
Cyclohexane	ug/L	N	100	-	8	-	7	-	8	-	4J	-	10	-	7	-	11	-	4J	-	8	-	4J	4J	-	6	5	-	2U	-	4J	4J	2U	2U	10U	-	2U	-	2U
Dibromochloromethane	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	5U	-	1U	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5UJ	2U	2U	10U	-	2U	-	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.8U	0.8U	4U	0.8U	0.8U	4U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	2J	-	1J	-	1U	-	1U	-	1U	-	1U	-	1U	-	1J	-	2J	-	1J	1U	-	1J	2J	-	1U	-	1U	1U	1U	1U	5U	-	1U	-	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	1U	-	1U	-	1U	1U	1U	1U	5U	-	1U	-	1U
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	3U	-	0.5U	-	0.5U
Methylcyclohexane	ug/L	N	100	-	3J	-	3J	-	4J	-	1U	-	9	-	4J	-	7	-	1J	-	4J	-	1J	1J	-	3J	3J	-	1U	-	3J	2J	1U	1U	5U	-	1U	-	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	2U	-	2U	-	2U	0.5U	2U	2U	10U	-	2U	-	2U
Styrene	ug/L	N	100	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	1U	-	1U	-	1U	1U	1U	1U	5U	-	1U	-	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	4U	-	0.8U	-	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5J	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.7U	0.7U	4U	0.8U	0.7U	4U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	0.8U	0.8U	4U	-	0.8U	-	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	5U	-	1U	-	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	5U	-	1U	-	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	2U	2U	10U	-	2U	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	1U	1U	5U	-	1U	-	1U
Xylene (total)	ug/L	N	1000	1J	0.8J	0.8U	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.7J	0.7J	0.6U	0.5U	1U	0.5U	0.5U	0.8U	0.8U	4U	0.9U	0.8U	4U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206
			Sample Date	08/11/2006	10/10/2006	01/31/2007	05/08/2007	07/26/2007	11/13/2007	01/25/2008	05/14/2008	07/15/2008	10/07/2008	01/23/2009	04/22/2009	08/04/2009	10/22/2009	01/27/2010	04/22/2010	07/22/2010	10/29/2010	02/24/2011	04/15/2011	07/06/2011	10/16/2011	02/01/2012	04/05/2012	07/12/2012	10/11/2012	02/05/2013	05/08/2013	07/25/2013	10/16/2013	10/16/2013	02/20/2014	05/02/2014	07/23/2014	10/01/2014	01/15/2015
			Field Sample ID	M206A8X	M206A9X	M206B1X	M206B2X	M206B3X	M206B4X	M206B5X	M206B6X	M206B7X	M206B8X	M206B9X	M206C1X	M206C2X	M206C3X	M206C4X	M206C5X	M206C6X	M206C7X	M206C8X	M206C9X	M206D1X	M206D2X	M206D3X	M206D4X	M206D5X	M206D6X	M206D7X	M206D8X	M206D9X	D1016131	M206E1X	M206E2X	M206E3X	M206E4X	M206E5X	M206E6X
			SDG	1001382	1009212	1023785	1037238	1048920	1065392	1074855	1091362	1100673	1113891	1129356	1141708	1156238	1167632	1180279	RFS39	RFS57	RFS76	RFS91	RFT09	RFT39	RFT78	RFU05	RFU39	RFV08	RFV63	RFX45	RFZ31	RFB73	CS029	CS029	CS064	CS093	CS129	CS164	CS195
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	RE	REG	FD	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	0.8U	-	0.8U	-	4U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	-
1,1,1-Trichloroethane	ug/L	N	30	-	0.8U	-	0.8U	-	4U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-
1,1,2-Trichloroethane	ug/L	N	3	-	0.8U	-	0.8U	-	4U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	2U	-	2U	-	10U	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-
1,1-Dichloroethane	ug/L	N	50	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	2U	-	2U	-	10U	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-
1,2-Dibromoethane	ug/L	N	0	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-
1,2-Dichloropropane	ug/L	N	1	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	3U	-	3U	-	15U	-	3U	-	30U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	3U	-	3U	-	15U	-	3U	-	30U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-
4-Methyl-2-pentanone	ug/L	N	100	-	3U	-	3U	-	15U	-	3U	-	30U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	3U	-	3U	-	3U	-
Acetone	ug/L	N	6000	-	6U	-	6U	-	30U	-	6U	-	60U	-	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-	6U	-	6U	6U	-	6U	-	6U	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5J	0.6J	3U	0.6J	0.5U	0.7J	5U	0.8J	0.7J	0.6J	0.8J	0.5U	0.5U	0.6J	0.6J	0.5U	0.5U	0.5U	0.5U	0.5J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7J	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-
Bromoform	ug/L	N	4	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-
Chlorobenzene	ug/L	N	50	-	0.8U	-	0.8U	-	4U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-
Chloroform	ug/L	N	70	-	0.8U	-	0.8U	-	4U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-
cis-1,2-Dichloroethene	ug/L	N	70	-	0.8U	-	0.8U	-	4U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	-
cis-1,3-Dichloropropene	ug/L	N	1	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-
Cyclohexane	ug/L	N	100	-	2U	-	2U	-	10U	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-
Dibromochloromethane	ug/L	N	1	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	2U	-	2U	-	10U	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	0.5U	-	0.5U	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-
Methyl-t-butyl ether	ug/L	N	70	-	0.5U	-	0.5U	-	3U	-	0.5U	-	5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-
Methylcyclohexane	ug/L	N	100	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	2U	-	2U	-	10U	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	2U	-	2U	-
Styrene	ug/L	N	100	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	1U	-	1U	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	0.8U	-	0.8U	-	4U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	4U	0.7U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	0.8U	-	0.8U	-	4U	-	0.8U	-	8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	0.8U	-	0.5U	-	0.5U	-
trans-1,3-Dichloropropene	ug/L	N	1	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	2U	-	2U	-	10U	-	2U	-	20U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	2U	-	0.5U	-	0.5U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	1U	-	1U	-	5U	-	1U	-	10U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	1U	-	0.5U	-	0.5U	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-206	MW-206	MW-206	MW-206	MW-207	MW-207	MW-207	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209
			Sample Date	04/29/2015	07/28/2015	10/15/2015	02/08/2018	06/19/2008	11/20/2017	02/12/2018	03/08/2005	08/18/2005	03/14/2006	07/13/2006	10/27/2006	04/11/2007	09/05/2007	03/20/2008	03/20/2008	09/03/2008	03/13/2009	10/01/2009	04/08/2010	05/10/2011	07/09/2013	12/15/2015	06/13/2017	03/08/2005	08/23/2005	03/14/2006	07/13/2006	10/27/2006	04/05/2007	09/05/2007	03/20/2008	09/03/2008	03/13/2009	10/01/2009	04/08/2010
			Field Sample ID	M206E7X	M206E8X	M206E9X	M206F6X	M207A1	M207A2X	M207A3X	M208A1X	M208A2X	M208A3X	M208A4X	M208A5X	M208A6X	M208A7X	D0320081	M208A8X	M208A9X	M208B1X	M208B2X	M208B3X	M208B4X	M208B5X	M208B6	M208B7	M209A1X	M209A2X	M209A3X	M209A4X	M209A5X	M209A6X	M209A7X	M209A8X	M209A9X	M209B1X	M209B2X	M209B3X
			SDG	CS224	CS267	CS299	CS643	1097627	CQ897	CQ971	RFF41	956018	981574	997280	1011912	1033234	1054619	1082600	1082600	1108227	1136060	1164446	RFS37	RFT19	RFB32	CS329	CS571	RFF41	956523	981574	997280	1011912	1032549	1054619	1082600	1108227	1136060	1164446	RFS37
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	-	0.5UJ	0.5UJ	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	-	0.5UJ	0.5UJ	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	-	0.5UJ	0.5UJ	1U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	-	0.5UJ	0.5UJ	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	2UJ	2UJ	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	-	0.5UJ	0.5UJ	1U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	1UJ	1UJ	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	2UJ	2UJ	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	-	0.5UJ	0.5UJ	1U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	1UJ	1UJ	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	-	0.5UJ	0.5UJ	1U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	-	0.5UJ	0.5UJ	1U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	1UJ	1UJ	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	-	1UJ	1UJ	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	3UJ	3UJ	3U	30U	6J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	-	3UJ	3UJ	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	-	3UJ	3UJ	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	-	6UJ	6UJ	14J	60U	29	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	6U	6U	6U	6U	6J	9J	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	1UJ	0.5UJ	0.5UJ	270	120	290	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8J	0.8J	0.7J	0.6J	0.5U	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	-	0.5UJ	0.5UJ	1U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	0.5U	-	0.5UJ	0.5UJ	1U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	-	0.5UJ	0.5UJ	1U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	-	1UJ	1UJ	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	-	0.5UJ	0.5UJ	1U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.5U	-	0.5UJ	0.5UJ	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	-	0.5UJ	0.5UJ	1U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.5U	-	0.5UJ	0.5UJ	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	-	0.5UJ	0.5UJ	1U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	-	0.5UJ	0.5UJ	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	-	0.5UJ	0.5UJ	1U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	-	2UJ	2UJ	50	29J	93	2U	2U	3J	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	22	11	14	7	4J	8	7	5	7	7	7	7
Dibromochloromethane	ug/L	N	1	0.5U	-	0.5UJ	0.5UJ	1U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	-	0.5UJ	0.5UJ	2U	5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	1UJ	0.5UJ	0.5UJ	92	56	52	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	4J	1J	4J	0.8U	0.8U	3J	1J	1J	0.8U	1J	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	-	1UJ	1UJ	8	19J	15	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1J	1U	2J	1U	1J	2J	2J	2J	1U	2J	1U	2J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	1UJ	1UJ	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	0.5UJ	0.5UJ	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	-	1UJ	1UJ	42	33J	74	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	15	6	8	4J	2J	3J	2J	2J	2J	3J	3J	4J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	2UJ	0.5UJ	2U	5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	-	1UJ	1UJ	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	-	0.5UJ	0.5UJ	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	1UJ	0.5UJ	0.5UJ	8	5U	5	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	-	0.5UJ	0.5UJ	0.8U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	-	0.5UJ	0.5UJ	1U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	-	0.5UJ	0.5UJ	1U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	-	0.5UJ	0.5UJ	2U	5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	-	0.5UJ	0.5UJ	1U	5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.5U	1UJ	0.5UJ	0.5UJ	53	7J	15	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	7	1J	1J	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	1J	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-209	MW-209	MW-209	MW-209	MW-209	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210
			Sample Date	10/26/2010	05/10/2011	07/09/2013	11/25/2015	06/13/2017	10/21/2002	03/10/2003	09/26/2003	03/04/2004	09/21/2004	05/25/2005	10/25/2005	05/24/2006	11/07/2006	05/18/2007	07/31/2008	05/19/2009	06/08/2010	07/20/2011	03/16/2012	03/01/2013	01/22/2018	03/12/2018	02/01/2005	06/01/2005	10/28/2005	05/31/2006	11/07/2006	05/24/2007	12/18/2007	08/12/2008	11/06/2008	07/24/2009	11/24/2009	06/08/2010
			Field Sample ID	M209B4X	M209B5X	M209B6X	M209B7X	M209B8X	M021A1Y	M021A2Y	M021A3	M021A3A	M021A4	M021A5	M021A6	M021A7	M021A8	M021A9	M021B1X	M021B2X	M021B3X-100608	M021B4X	M021B5X	M021B6X	M021B9X	M021C1X	M210A1X	M210A2X	M210A3X	M210A4X	M210A5X	M210A6X	M210A7X	M210A8X	M210A9X	M210B1X	M210B2X	M210B3X-100608
			SDG	RFS75	RFT19	RFB32	CS320	CS571	RFE33	RFE67	RFE87	RFE98	RFF24	RFF55	964663	990907	1013229	1039073	1103309	1145500	RFS46	RFT45	RFU23	RFX87	CQ946	CQ998	LNA11	RFF57	965244	991597	1013229	1039857	1070340	1105054	1118813	1154932	1172674	RFS46
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U	10U	2U	2U	2U	2U	2U	2U	10U	10U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U	10U	2U	2U	2U	2U	2U	2U	10U	10U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	3U	15U	3U	3U	3U	3U	3U	3U	15U	15U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	3U	15U	3U	3U	3U	3U	3U	3U	15U	15U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	3U	15U	3U	3U	3U	3U	3U	3U	15U	15U	3U	3U	3U
Acetone	ug/L	N	6000	6U	7J	-	-	-	22	6U	19J	6U	13J	6U	6J	7J	6U	-	-	-	-	-	-	-	6U	6J	30U	12J	10J	9J	15J	12J	94	30U	30U	7J	9J	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8J	0.7J	0.8J	0.5U	0.5U	0.5U	3U	3U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
Cyclohexane	ug/L	N	100	8	8	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U	10U	2U	2U	2U	2U	2U	2U	10U	10U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	0.5U	0.5U	10U	2U	2U	2U	2U	2U	2U	10U	10U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1J	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	3J	4J	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	0.5U	0.5U	10U	2U	2U	2U	2U	2U	2U	10U	10U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	4U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	4U	4J	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	0.5U	0.5U	10U	2U	2U	2U	2U	2U	2U	10U	10U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	0.5U	0.5U	5U	1U	1U	1U	1U	1U	1U	5U	5U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	4U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-210	MW-210	MW-210	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211
			Sample Date	09/23/2010	06/16/2011	03/14/2012	02/01/2005	06/01/2005	10/27/2005	05/25/2006	11/07/2006	05/24/2007	12/18/2007	06/24/2008	10/30/2008	05/19/2009	11/24/2009	06/08/2010	09/23/2010	06/16/2011	03/14/2012	06/26/2013	05/22/2014	07/02/2014	08/05/2014	09/26/2014	10/30/2014	03/12/2015	03/24/2015	06/08/2015	09/16/2015	11/16/2015	12/17/2015	01/14/2016	04/08/2016	07/22/2016	12/08/2016	01/19/2017
			Field Sample ID	M210B4X	M210B5X	M210B6X	M211A1X	M211A2X	M211A3X	M211A4X	M211A5X	M211A6X	M211A7X	M211A8X	M211A9X	M211B1X	M211B2X	M211B3X-100608	M211B4X	M211B5X	M211B6X	M211B7X	M211B8	M211B9X	M211C1X	M211C2	M211C3	M211C4X	M211C5	M211C6	M211C7	M211C8	M211C9X	M211D1	M211D2	M211D3	M211D4	M211D5
			SDG	RFS68	RFT33	RFU20	LNA11	RFF57	965062	991108	1013229	1039857	1070340	1097656	1117661	1145500	1172674	RFS46	RFS68	RFT33	RFU20	CP018	CS103	CP401	CP466	CS162	CS179	CP667	CS212	CS248	CS285	CS316	CP978	CS343	CS383	CS434	CS492	CS501
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1UJ
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	4U
1,1-Dichloroethane	ug/L	N	50	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	2U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	4U
1,2-Dibromoethane	ug/L	N	0	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	2U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
1,2-Dichloropropane	ug/L	N	1	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	2U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	2U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	-	3U	3U	4J	3U	3U	3U	3U	3U	3U	30U	3U	3U	3U	-	-	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	15U	3U	3U	3U	5J	3UJ	6U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U	3U	3U	3U	-	-	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	15U	3U	3UJ	3U	3U	3UJ	6U
4-Methyl-2-pentanone	ug/L	N	100	3U	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U	3U	3U	3U	-	-	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	15U	3U	3UJ	3U	3U	3UJ	6U
Acetone	ug/L	N	6000	11J	-	-	7J	7J	52	21	18J	15J	10J	8J	6U	60U	12J	11J	11J	-	-	6U	6U	14J	13J	6U	6U	6J	9J	6U	26J	30U	12J	6U	6U	6U	6U	12U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.9J	0.5U	0.5U	0.5J	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.6J	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Bromoform	ug/L	N	4	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	2U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Chlorobenzene	ug/L	N	50	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Chloroform	ug/L	N	70	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
cis-1,3-Dichloropropene	ug/L	N	1	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Cyclohexane	ug/L	N	100	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	4J	2U	10U	2U	2U	2U	2U	2UJ	4U
Dibromochloromethane	ug/L	N	1	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	-	-	2U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	1J	0.8U	4J	2J	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	-	-	53	1U	3J	10	34	30	52	3J	16	10U	22	11	7	-	-	27	38	5J	11J	1U	1U	24	24	39	7	5U	32	1U	2J	1U	1U	2U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	2U
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	-	-	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Methylcyclohexane	ug/L	N	100	1U	-	-	2J	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1J	1U	1U	1UJ	1U	1U	1U	1U	1J	1U	5U	1J	1U	1U	1UJ	1J	2U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2UJ	4U
Styrene	ug/L	N	100	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	2U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.6J	0.5U	0.6J	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	-	-	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
trans-1,3-Dichloropropene	ug/L	N	1	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	-	-	2U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	-	-	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.9J	1J	0.6J	0.8J	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.7J	0.5U	3U	0.6J	0.5U	0.5U	0.5U	0.5U	1U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	290	-	-	-	180	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	260	-	-	110J	-	-	220	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-211	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-222	MW-222	MW-222	MW-222
			Sample Date	04/18/2017	05/06/2008	11/13/2008	05/29/2009	11/20/2009	04/29/2010	09/21/2010	06/23/2011	11/15/2011	03/20/2012	08/14/2012	02/27/2013	05/07/2013	06/18/2013	04/01/2014	06/26/2014	07/29/2014	01/20/2015	08/07/2015	11/27/2017	01/09/2006	01/24/2006	05/18/2006	08/24/2006	08/24/2006	01/09/2006	01/24/2006	05/18/2006	08/24/2006	08/14/2014	04/26/2016	06/20/2017	01/09/2006	01/24/2006	05/18/2006	08/24/2006
			Field Sample ID	M211D6	M212A1X	M212A2X	M212A3X	M212A4X	M212A5X	M212A6X	M212A8X	M212A9X	M212B1X	M212B2X	M212B3X	M212B4X	M212B5X	M212B6X	M212B7X	M212B8X	M212B9X	M212C1X	M212C6X	M221A1	M221A2X	M221A3X	M221A4X	M221A6X	M221A7X	M221A8X	M221B1X	M221B2X	M221B3X	M221B4X	M221B5X	M222A1	M222A2X	M222A3X	M222A4X
			SDG	CS545	1089841	1120044	1146962	1172227	RFS40	RFS68	RFT36	RFT86	RFU25	RFV28	RFX80	RFZ29	CP005	CS079	CP389	CP431	CP648	CS270	CQ904	974021	975512	990164	1003077	1094221	1155531	RFT68	RFU87	CS003	CS142	CS391	CS575	974021	975512	990164	1003077
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	4J	3J	3J	2J	2J	3J	3J	2	2	2	17	15	14	15
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	2U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	3J	1J	2J	0.8J	0.8U	2J	0.8J	0.5J	0.7J	0.7J	2J	2J	2J	2J
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	4U
1,1-Dichloroethane	ug/L	N	50	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	2U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	4U
1,2-Dibromoethane	ug/L	N	0	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	2U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U
1,2-Dichloropropane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	2U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	2U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	6U	3U	6U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	6U	3U	6U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	6U	3U	6U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	7J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	12U	6U	12U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.6J	0.5U	0.5U	0.5U	0.7J	0.5J	0.5J	0.5J	0.5J	4J	3J	2J	2J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U
Bromoform	ug/L	N	4	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21000	40000	64000	81000	40000	81000	62000	80000	89000	-	80000	-	73000	70000	78000
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1J	2U	1U	2U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U
Chlorobenzene	ug/L	N	50	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	2U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U
Chloroform	ug/L	N	70	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	1J	2U	0.8U	2U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	190	110	1700	880	1100	640	470	820	770	660	710	760	1600	1500	1300	1200
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4J	2U	5	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	9	17	16	16
Dibromochloromethane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	2U	4U	2U	4U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	2.3J	1.1J	1.0J
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	3.7J	1.1J	1.0U
Ethylbenzene	ug/L	N	700	0.5U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	2U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	7	14	1J	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	2U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	8.0	8.3	8.6	25	62	14J	24	11	12	3.0U	-	51	33	25
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	2U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.6J	1J	2J	3J	2J	2J	4J	3J	3J	2	1	2	0.9J	1U	1J	1U
Methylcyclohexane	ug/L	N	100	1U	23	3J	3J	2J	2J	1U	2J	2J	1U	1U	1U	3J	9	1U	5	1U	1J	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	3J	8J	5J	4J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	4U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	2U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	2U
Toluene	ug/L	N	600	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U	1U	0.7U	1U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	1J	8	6	5	5J	5J	7	7	11	5	7	11	16	9	10
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	2U	1U	2U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	41	35	320	200	230	140	77	160	290	210	210J	190	1900	1800	1300	1200
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	2U	4U	2U	4U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4J	3J	9	9	6	12	32	34	25	21	20	29	37	43	44	31
Xylene (total)	ug/L	N	1000	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	2U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	130	190	-	-	70J	39J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-224	MW-224	MW-224	MW-224	MW-224	MW-224	MW-224	MW-224	MW-225	MW-225	MW-225	MW-225	MW-225	MW-225	MW-225	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226
			Sample Date	06/03/2008	07/29/2009	08/12/2010	09/15/2011	06/21/2012	08/29/2013	08/14/2014	04/26/2016	06/20/2017	11/23/2005	12/08/2005	03/02/2006	05/22/2006	08/22/2006	10/04/2007	06/10/2008	09/15/2009	11/23/2005	12/08/2005	03/02/2006	05/18/2006	08/22/2006	06/10/2008	09/15/2009	11/23/2005	12/08/2005	03/02/2006	05/18/2006	08/22/2006	06/10/2008	09/15/2009	08/12/2010	09/15/2011	06/21/2012	08/30/2013	08/14/2014
			Field Sample ID	M222A6X	M222A7X	M222A8X	M222A9X	M222B2X	M222B3X	M222B4X	M222B5X	M222B6X	M224A1	M224A2X	M224A3X	M224A4X	M224A5X	M224A6X	M224A7X	M224A8X	M225A1	M225A2X	M225A3X	M225A4X	M225A5X	M225A7X	M225A8X	M226A1	M226A2X	M226A3X	M226A4X	M226A5X	M226A7X	M226A8X	M226A9X	M226B1X	M226B3X	M226B4X	M226B5X
			SDG	1094221	1155531	RFS63	RFT68	RFU87	CS002	CS142	CS391	CS575	968826	970442	980099	990703	1002619	1059557	1095466	1161893	968826	970442	980532	990164	1002620	1095396	1161893	968826	970442	980532	990164	1002620	1095396	1161893	RFS63	RFT68	RFU87	CS003	CS142
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	7	11	12	13	14	10J	15	8	9	0.8U	0.8U	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	2U	0.8U	0.8U	2U	0.5U	1U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	1J	2J	2J	2J	2J	2U	1	1J	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	4U	2U	2U	4U	2U	4U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	2U	1U	1U	2U	1U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	4U	2U	2U	4U	2U	4U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	2U	1U	1U	2U	1U	2U	2U	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,2-Dichloropropane	ug/L	N	1	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	2U	1U	1U	2U	1U	2U	2U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	2U	1U	1U	2U	1U	2U	2U	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	6U	3U	3U	6U	3U	6U	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	6U	3U	3U	6U	3U	6U	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	6U	3U	3U	6U	3U	6U	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	12U	6U	6U	12U	6U	12U	12U	14J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.9J	2J	2J	2J	2J	2J	3	2J	2J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	7	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Bromoform	ug/L	N	4	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Carbon Dioxide	ug/L	N	NS	62000	53000	71000	69000	61000	92000	84000	-	92000	-	170000	250000	190000	270000	270000	260000	280000	-	52000	65000	76000	66000	130000	89000	-	52000	60000	68000	65000	72000	70000	43000	36000	60000	57000	52000
Carbon disulfide	ug/L	N	700	1U	1U	2U	1U	1U	2U	1U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	2U	0.8U	0.8U	2U	0.5U	1U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Chloroform	ug/L	N	70	0.8U	0.8U	2U	0.8U	0.8U	2U	0.5U	1U	1U	28	7	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	1100	1400	1700	1700	1900	1700	2100	1600	1300	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	2J	5	5J	2J	2J	0.8U	5J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Cyclohexane	ug/L	N	100	2U	8	4J	6	12	5J	7	4U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	4U	2U	2U	4U	0.5U	1U	1U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U
Ethane	ug/L	N	-	1.0U	1.3J	1.4J	1.2J	1.2J	1.8J	2.0J	1.9J	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Ethene	ug/L	N	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Ethylbenzene	ug/L	N	700	0.8U	0.8U	2U	0.8U	0.8U	2U	0.5U	1U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	2U	1U	1U	2U	1U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	6.4	29	25	22	38	32	26	29	4.4J	-	7.7	19	16	30	52	18	25	-	2.0U	2.0U	2.0U	2.0U	2.0U	5.0J	-	18	6.3	8.0	7.6	11	19	11J	5.0J	5.7J	3.0U	3.0U
Methyl acetate	ug/L	N	7000	1U	1U	2U	1U	1U	2U	1U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5J	0.9J	1U	0.8J	0.9J	1U	0.7J	1U	1U	6	16	21	19	19	19	19	17	0.8J	0.7J	3J	6	6	55	22	300	370	270	230	140	47	51	8	17	11	2J	2
Methylcyclohexane	ug/L	N	100	2J	1U	2U	1J	3J	2U	1U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	4U	2U	2U	4U	2U	4U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	2U	1U	1U	2U	1U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	2U	0.8U	0.8U	2U	0.5U	1U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Toluene	ug/L	N	600	0.7U	0.7U	1U	0.7U	0.7U	1U	0.5U	1U	1U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	6	9	10J	10	14	8J	14	8	10	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	2U	1U	1U	2U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	480	830	1000	1100	840	770	1100	760J	670	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	18	7	6	2J	9	1U	1J	1U	1U	1U	1U	1U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	4U	2U	2U	4U	0.5U	1U	1U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	31	35	41	43	53	29	37	35	21	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	2U	0.8U	0.8U	2U	0.5U	1U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-227R	MW-227R	MW-227R	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233
			Sample Date	11/25/2015	05/19/2016	06/14/2017	05/23/2006	07/07/2006	06/05/2008	09/02/2009	07/29/2010	08/23/2011	06/13/2012	08/06/2013	08/12/2014	12/03/2015	04/28/2016	06/15/2017	06/02/2006	12/12/2006	05/24/2007	12/19/2007	06/24/2008	11/11/2008	05/29/2009	11/20/2009	05/14/2010	09/23/2010	06/21/2011	03/21/2012	05/24/2012	05/25/2012	07/25/2012	07/26/2012	04/25/2013	06/17/2013	06/25/2013	09/10/2013
			Field Sample ID	M227RA1	M227RA2X	M227RA3X	M230A1X	M230A2X	M230A3X	M230A4X	M230A5X	M230A6X	M230A7X	M230A8X	M230A9X	M230B1X	M230B2X	M230B3X	M233A1X	M233A2X	M233A3X	M233A4X	M233A5X	M233A6X	M233A7X	M233A8X	M233A9X-100514	M233B1X	M233B2X	M233B3X	M233B4	M233B4	M233B4X	M233B5	M233B5X	M233B6X	M233B7	M233B8X	M233B9
			SDG	CS320	CS403	CS572	990703	996484	1094772	1160329	RFS60	RFT62	RFU82	RFB82	CS140	CS323	CS392	CS573	991967	1017858	1039857	1070579	1097656	1119533	1146962	1172227	RFS42	RFS68	RFT35	RFU27	RFU73	RFU74	RFV16	RFV17	RFZ12	RFB08	CP016	CS007
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	450	510	520	30	120	92	300	14	1400	1700	1400	650	0.8U	0.8U	0.8U	0.8U	0.8U	2U	2U	0.8U	0.8U	2U	2U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	1400	1500	1500	37	180	150	610	21	5300	5000	5300	2200	0.8U	0.8U	0.8U	0.8U	0.8U	2U	2U	0.8U	0.8U	2U	2U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	2J	2J	2U	0.8U	0.8U	0.8U	1J	0.8U	3J	5U	5U	1	0.8U	0.8U	0.8U	0.8U	0.8U	2U	2U	0.8U	0.8U	2U	2U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	2U	2U	4U	2U	2U	2U	2U	2U	10U	20U	20U	2U	2U	2U	2U	2U	2U	5U	4U	2U	2U	4U	4U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	120	120	120	11	33	39	130	7	890	1000	920	590	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1J	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	2U	2U	4U	2U	2U	2U	2U	2U	10U	20U	20U	2U	2U	2U	2U	2U	2U	5U	4U	2U	2U	4U	4U	4U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	1J	1J	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.7J	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	3U	3U	6U	3U	3U	3U	3U	3U	15U	30U	30U	7J	3U	6J	11	15	4J	22J	19J	3U	21	7J	13J	6U	5J	9J	15	23	3U	19	19	9J	
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	3U	3U	6U	3U	3U	3U	3U	3U	15U	30U	30U	3U	3U	3U	3U	3U	3U	8U	6U	3U	3U	6U	6U	6U	3J	3U	3U	7J	3U	3U	3U	3U	
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	3U	3U	6U	3U	3U	3U	3U	3U	15U	30U	30U	3U	3U	3U	3U	3U	3U	8U	6U	3U	3U	6U	6U	6U	3U	3U	10J	4J	3U	3U	3U	3U	
Acetone	ug/L	N	6000	-	-	-	6U	6U	12U	6U	6U	17J	6U	6U	30U	60U	60U	6U	11J	15J	38	45	11J	71	56	31	56	18J	40J	12U	15J	24	42	53	6U	30	49	22	
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	82	59	2	1J	1J	1J	0.5U	0.5U	0.5U	0.6J	0.5U	3U	5U	5U	0.6J	59	300	350	280	540	730	1300	820	1000	280	1400	430	1300	860	270	220	370	530	160	460	
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1UJ	1U	1U	1U	
Carbon Dioxide	ug/L	N	NS	-	-	-	110000	100000	150000	110000	170000	95000	92000	71000	190000	170000	140000	180000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	1U	1U	2U	1U	1U	1U	1U	1UJ	5U	10U	10U	1U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	-	-	-	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	3U	5U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	2U	0.8U	0.8U	2U	2U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	2J	2J	2J	1U	2J	1U	1J	1U	18	31	28J	8	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	-	-	-	0.9J	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	3U	5U	5U	0.5J	0.8U	0.8U	0.8U	0.8U	0.8U	2U	2U	0.8U	0.8U	2U	2U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	6J	0.5U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	5J	4J	3J	3J	3J	2J	2J	0.8U	7	23	26	9	0.8U	0.8U	0.8U	0.8U	0.8U	2U	2U	0.8U	0.8U	2U	2U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	-	-	-	2U	2U	4U	2U	2U	2U	2U	2U	10U	20U	20U	2U	12	120	120	130	140	130	99	140	170	120	100	130	160	150	65	140	130	130	66	160	
Dibromochloromethane	ug/L	N	1	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	2U	2U	4U	2U	2U	2U	2U	2U	3U	5U	5U	0.5U	2U	2U	2U	2U	2U	5U	4U	2U	2U	4U	4U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	2.1J	1.0U	1.0U	7.0U	1.0U	1.0U	1.0U	1.0U	4.3J	5.7	4.6J	2.4J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	1.0U	1.0U	1.0U	1.7J	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8J	3U	0.5U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	3U	5U	5U	0.5U	28	29	32	26	0.8U	57	230	12	98	20	390	45	250	100	5	12	22	21	8	77	
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	4J	21	43	21	1U	22	25	2J	21	45	34	24	20	19	7	18	28	9	2J	21	
Methane	ug/L	N	NS	-	-	-	160	86	120	340	120	170	190	470	470	680	590	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	45	52	18	4J	4J	2J	3J	0.5U	3U	5U	5U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	0.5U	0.5U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	10	110	110	140	150	160	110	130	210	100	140	130	150	170	63	130	160	120	98	160	
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	4J	4J	4J	2U	2U	2U	2U	2U	10U	20U	20U	2U	2U	2U	2U	2U	2U	5U	4U	2U	2U	4U	4U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	5U	10U	10U	1U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	6	8	7J	0.8U	2J	2J	4J	0.8U	19	26	21	5	0.8U	0.8U	0.8U	0.8U	0.8U	2U	2U	0.8U	0.8U	2U	2U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	3U	0.5U	0.7U	0.7U	1U	0.7U	0.7U	0.7U	0.7U	0.7U	3U	5U	5U	0.5U	10	55	73	59	46	71	130	74	140	41	180	51	170	120	22	32	30	49	16	65	
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	3U	5U	5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	2U	0.8U	0.8U	2U	2U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	3U	5U	5U	0.5U	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	120	100	75	50	81	45	53	5J	130	150	110	30	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	2U	2U	4U	2U	2U	2U	2U	2U	3U	5U	5U	0.5U	2U	2U	2U	2U	2U	5U	4U	2U	2U	4U	4U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	2J	2J	2J	2J	2J	2J	2J	1U	13	15	14	3	1U	1U	1U	1U	1U	3U	2U	1U	1U	2U	2U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.5U	3U	0.5U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	3U	5U	5U	0.5U	17	120	110	120	240	300	460	320	480	79	600	170	540	410	28	47	49	72	35	120	
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4800J+	-	3100J	-	

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R
			Sample Date	11/12/2013	03/14/2014	07/02/2014	08/04/2014	08/08/2014	10/31/2014	01/16/2015	03/11/2015	06/09/2015	07/07/2015	09/21/2015	10/16/2017	01/26/2018	06/02/2006	12/12/2006	05/24/2007	12/20/2007	06/25/2008	11/11/2008	05/19/2009	11/24/2009	05/21/2010	09/23/2010	09/23/2010	06/21/2011	03/21/2012	07/26/2013	07/03/2014	08/01/2014	08/29/2014	01/16/2015	09/18/2015	11/19/2015	12/15/2015	01/13/2016
			Field Sample ID	M233C1	M233C2	M233C4X	M233C5X	M233C6	M233C7	M233C8X	M233C9	M233D1	M233D2X	M233D3	M233E6	M233E7	M234A1X	M234A2X	M234A3X	M234A4X	M234A5X	M234A6X	M234A7X	M234A8X	M234A9X-100521	D0923102	M234B1X	M234B2X	M234B3X	M234RA1X	M234RA2X	M234RA3X	M234RA4X	M234RA5X	M234RA6	M234RA7	M234RA8X	M234RA9
			SDG	CS042	CS073	CP401	CP442	CS139	CS180	CP644	CS208	CS249	CP770	CS288	CS618	CS638	991967	1017858	1039857	1070808	1097890	1119533	1145500	1172674	RFS43	RFS68	RFS68	RFT35	RFU27	CP054	CP404	CP441	CS149	CP644	CS287	CS319	CP969	CS342
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.5U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	0.5U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.5U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	20UJ	20U	20U	20U	20U	2UJ	2U	10U	20U	4UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2UJ	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	10UJ	10U	10U	10U	10U	1UJ	1U	5U	10U	2UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1UJ	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	20UJ	20U	20U	20U	20U	2UJ	2U	10U	20U	4UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2UJ	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	10UJ	10U	10U	10U	10U	1UJ	1U	5U	10U	2UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1UJ	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	0.5U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
1,2-Dichloropropane	ug/L	N	1	1U	0.5U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	10UJ	10U	10U	10U	10U	1UJ	1U	5U	10U	2UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1UJ	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	10UJ	10U	10U	10U	10U	1UJ	1U	5U	10U	2UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1UJ	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	18	5J	30UJ	30U	88J	35J	30U	4J	8J	15U	30U	6UJ	3U	4J	3U	3U	3U	3U	6J	3U	3U	3U	3U	4J	3J	3J	3J	3UJ	3U	3U	3U	3U	4J	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	7J	19	3U	30UJ	30U	30U	30U	30U	3UJ	3U	15U	30U	6UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3UJ	3UJ
4-Methyl-2-pentanone	ug/L	N	100	13	6J	3U	30UJ	30U	30U	30U	30U	3UJ	3U	15U	30U	6UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3UJ	3UJ
Acetone	ug/L	N	6000	6U	28	26	60UJ	60U	390	60U	60U	10J	24	30U	60UJ	12UJ	6U	9J	6U	6U	6U	6U	17J	6U	6U	6U	6U	9J	6U	7J	6J	6UJ	6U	6U	7J	6U	7J	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	84	390	57	140J	260	73	270	360	420J	280	270	360	330J	40	120	16	30	16	8	120	12	97	59	76	83	75	36	43	45J	57	47	28	53	54	50
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	0.5U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Bromoform	ug/L	N	4	1U	0.5U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	10UJ	10U	16J	10U	10U	1J	1J	5U	10U	2UJ	2J	1U	1U	1U	1U	1U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1UJ	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	0.5U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Chloroform	ug/L	N	70	0.8U	0.8U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5UJ	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	1U	0.5U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Cyclohexane	ug/L	N	100	75	62	21	28J	59	22J	36J	41J	52J	61	39	43J	71J	58	48	13	20	3J	12	17	16	36	19	21	36	70	28	53	52J	53	44	10	32	35	35
Dibromochloromethane	ug/L	N	1	1U	0.5U	0.5U	5UJ	5U	5U	5UJ	5U	0.5UJ	0.5U	3U	5U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	3J	3J	0.7J	5UJ	6J	5U	7J	5U	7J	28	13	22	21J	130	280	28	77	16	0.8U	100	49	45	31	33	230	170	50	30	26J	22	24	5	11	13	12
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	13	1U	1U	10UJ	10U	10U	10U	10U	1J	7	5U	10U	5J	18	30	5	10	5J	1U	16	10	18	10	12	32	30	12	28	28J	26	26	9	15	19	16
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	10UJ	10U	10U	10U	10U	1UJ	1U	5U	10UJ	2UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1UJ	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Methylcyclohexane	ug/L	N	100	94	56	17	27J	39J	26J	38J	42J	48J	81	51	56	71J	120	74	11	23	5J	16	16	17	23	13	14	52	100	30	73	76J	66	58	13	34	45	37
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	20UJ	20U	20U	20U	20U	2UJ	2U	10U	5U	1UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2UJ	2U
Styrene	ug/L	N	100	1U	1U	1U	10UJ	10U	10U	10U	10U	1UJ	1U	5U	10U	2UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1UJ	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.5U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Toluene	ug/L	N	600	15	16	3	5UJ	9J	5J	9J	7J	11J	18	11	13	14J	20	51	5J	13	5	3J	35	8	28	16	19	69	31	20	49	46J	56	55	20	42	61	38
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	0.5U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	0.5U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	0.5U	0.5U	5UJ	5U	5U	5U	5U	0.5UJ	0.5U	3U	5U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Xylene (total)	ug/L	N	1000	29	23	4	5UJ	15	8J	22	19	22J	49	25	31	30J	230	660	65	220	58	120	290	130	180	120	120	700	500	200	370	390J	330	320	84	160	170	130
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2200	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	1900J+	-	-	3000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2500	-	3600J	-	2500	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-239
			Sample Date	04/14/2016	07/25/2016	12/06/2016	01/23/2017	03/22/2017	04/28/2017	05/17/2017	10/31/2006	12/07/2006	05/11/2007	11/30/2007	07/03/2008	10/14/2008	06/24/2009	11/17/2009	05/11/2010	10/06/2010	06/03/2011	02/14/2012	03/05/2013	06/03/2014	09/30/2015	12/15/2006	05/10/2007	12/11/2007	07/18/2008	11/04/2008	07/21/2009	11/06/2009	07/08/2010	06/08/2011	03/07/2012	04/25/2013	05/29/2014	12/15/2006
			Field Sample ID	M234RB1	M234RB2	M234RB3	M234RB4	M234RB6X	M234RB7	M234RB8X	M237A1	M237A2X	M237A3X	M237A4X	M237A5X	M237A6X	M237A7X	M237A8X	M237A9X-100511	M237B1X	M237B2X	M237B3X	M237B4X	M237B5X	M237B6X	M238A1X	M238A2X	M238A3X	M238A4X	M238A5X	M238A6X	M238A7X	M238A8X	M238A9X	M238B1X	M238B2X	M238B3X	M239A1X
			SDG	CS386	CS435	CS491	CS503	CQ561	CS552	CQ641	1012219	1017222	1037974	1067672	1099204	1114995	1150741	RFS20	RFS42	RFS69	RFT27	RFU10	RFX90	CS108	CS292	1018500	1037739	1069298	1101417	1118353	1154382	1170013	RFS54	RFT30	RFU15	RFZ13	CS106	1018500
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.5U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.5U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.5U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.5U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.5U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.5U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5UJ	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.5U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.5U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3J	3UJ	3U	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3UJ	3U	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	-	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	3U	3U
Acetone	ug/L	N	6000	6U	6U	6J	6U	-	6U	-	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6UJ	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	64	89	140	140	110	110	120	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.5U	6
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.5U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.5U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.5U	1U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.5U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	0.5UJ	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	0.5U	0.5UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.5U	1U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	3J	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.5U	30
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5UJ	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.5U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.5U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.5U	1U
Cyclohexane	ug/L	N	100	28	24	40	33	-	30	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.5U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5UJ	0.5U	0.5U	-	0.5UJ	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5UJ	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	0.5U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	12	12	14	13	-	16	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	16	16	14	19	-	23	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1UJ	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	31	32	52	41	-	36	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1J	1U	1U	1U	1U	1U	-	-	-	-	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	-	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	-	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.5U	0.8U
Toluene	ug/L	N	600	80	110	72	74	-	75	-	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5UJ	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	0.5U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.5U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.5U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5UJ	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	0.5U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	0.5U	1U
Xylene (total)	ug/L	N	1000	150	120	120	110	-	110	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.8U	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	2800J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-241	MW-241	MW-241	MW-241	MW-241
			Sample Date	05/16/2007	12/06/2007	07/29/2008	10/21/2008	06/26/2009	10/27/2009	06/15/2010	09/16/2010	05/19/2011	02/28/2012	03/21/2013	09/10/2014	12/01/2006	05/11/2007	12/06/2007	07/29/2008	10/30/2008	05/27/2009	10/27/2009	06/23/2011	03/15/2012	02/26/2013	04/30/2013	06/19/2013	03/13/2014	06/30/2014	07/30/2014	09/11/2014	01/19/2015	11/29/2017	12/07/2006	05/16/2007	12/06/2007	08/15/2008	10/30/2008
			Field Sample ID	M239A2X	M239A3X	M239A4X	M239A5X	M239A6X	M239A7X	M239A9X-100615	M239B1X	M239B2X	M239B3X	M239B4X	M239B5X	M240A1X	M240A2X	M240A3X	M240A4X	M240A5X	M240A6X	M240A7X	M240A8X	M240A9X	M240B1X	M240B2X	M240B3X	M240B4X	M240B5X	M240B6X	M240B7X	M240B8X	M240C3X	M241A1X	M241A2X	M241A3X	M241A4X	M241A5X
			SDG	1038619	1068622	1102860	1116164	1151128	1168255	RFS47	RFS67	RFT23	RFU13	RFY20	CS155	1016343	1037974	1068622	1102860	1117661	1146548	1168255	RFT36	RFU22	RFX79	RFZ24	CP008	CP277	CP392	CP432	CS154	CP647	CQ908	1017222	1038619	1068622	1105739	1117661
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.5U	0.5UJ	-	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.5U	0.5UJ	-	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	0.5U	0.5UJ	-	0.5U	0.5UJ	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.5U	0.5UJ	-	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	2UJ	2U	2U	2U	2UJ	-	2U	2UJ	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	0.5U	0.5UJ	-	0.5U	0.5UJ	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1UJ	-	1UJ	1UJ	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2UJ	-	2U	2UJ	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	0.5U	0.5UJ	-	0.5U	0.5UJ	1U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1UJ	-	1U	1UJ	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	0.5U	0.5UJ	-	0.5U	0.5UJ	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	0.5U	0.5UJ	-	0.5U	0.5UJ	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1UJ	-	1U	1UJ	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1UJ	-	1U	1UJ	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	3UJ	-	3U	3UJ	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	3UJ	-	3U	3UJ	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	3UJ	-	3U	3UJ	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	6U	6U	6U	6U	6U	6U	6U	-	-	-	6U	6U	6U	6U	6UJ	-	6U	6UJ	6U	7J	6U	6J	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	180	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1J	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	2J	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	6	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	0.5U	0.5UJ	-	0.5U	0.5UJ	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	0.5U	0.5UJ	-	0.5U	0.5UJ	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1UJ	1U	0.5U	0.5UJ	-	0.5U	0.5UJ	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1UJ	-	1U	1UJ	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	0.5U	0.5UJ	-	0.5U	0.5UJ	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.5U	0.5UJ	-	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1UJ	1U	0.5U	0.5UJ	-	0.5U	0.5UJ	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	9	2J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	37	3J	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.5U	0.5UJ	-	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	0.5U	0.5UJ	-	0.5U	0.5UJ	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.5U	0.5UJ	-	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	0.5U	0.5UJ	-	0.5U	0.5UJ	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2UJ	-	2U	2UJ	4J	4J	5	6	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	0.5U	0.5UJ	-	0.5U	0.5UJ	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	0.5U	0.5UJ	-	0.5U	0.5UJ	2U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1UJ	-	1U	1UJ	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1UJ	-	1U	1UJ	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5UJ	-	0.5U	0.5UJ	10	9	14	12	11
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1UJ	-	1U	1UJ	1J	1U	1J	1J	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2UJ	-	2U	0.5UJ	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1UJ	-	1U	1UJ	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.5U	0.5UJ	-	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.7U	0.7U	5	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.5U	0.5UJ	-	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	0.5U	0.5UJ	-	0.5U	0.5UJ	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	0.5U	0.5UJ	-	0.5U	0.5UJ	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	0.5U	0.5UJ	-	0.5U	0.5UJ	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	0.5U	0.5UJ	-	0.5U	0.5UJ	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20U	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20U	20U	20U	-	20U	-	20U	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-243	MW-243	MW-243	MW-243
			Sample Date	06/11/2009	11/19/2009	04/29/2010	09/21/2010	08/04/2011	11/22/2011	03/27/2012	08/09/2012	04/04/2013	09/26/2013	06/19/2014	11/12/2014	06/30/2015	02/02/2016	02/18/2016	08/16/2016	02/15/2017	08/22/2017	03/01/2018	12/05/2006	05/15/2007	12/20/2007	08/13/2008	11/13/2008	07/01/2009	11/12/2009	06/08/2010	06/16/2011	03/14/2012	09/26/2013	08/29/2014	12/05/2006	05/11/2007	12/04/2007	07/23/2008
			Field Sample ID	M241A6X	M241A7X	M241A8X	M241A9X	M241B1X	M241B2X	M241B3X	M241B4X	M241B5X	M241B6X	M241B7X	M241B8X	M241B9X	M241HS	M241C1X	M241C2X	M241C3X	M241C4X	M241C5X	M242A1X	M242A2X	M242A3X	M242A4X	M242A5X	M242A6X	M242A7X	M242A8X-100608	M242A9X	M242B1X	M242B2X	M242B3X	M243A1X	M243A2X	M243A3X	M243A4X
			SDG	1148815	1171988	RFS40	RFS68	RFT50	RFT88	RFU30	RFV27	RFY53	CS016	CS114	CS184	CS256	CS349	CS359	CS441	CS514	CS592	CS655	1016740	1038388	1070809	1105279	1120044	1151840	1170880	RFS46	RFT33	RFU20	CS016	CS149	1016740	1037974	1068129	1102068
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	SP	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	Report Units	Filtered	CMI GW Action Limit	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	40U	4U	2U	16U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	40U	4U	2U	16U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	40U	4U	2U	16U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	100U	10U	4U	40U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	100U	10U	4U	40U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	150U	15U	6U	60U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	150U	15U	6U	60U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	150U	15U	6U	60U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6UJ	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-	-	300U	30U	12J	120U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4000	2300	720	1400
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	40U	4U	2U	16U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	40U	4U	2U	16U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	40U	4U	2U	16U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
Cyclohexane	ug/L	N	100	4J	6	4J	6	6	2J	6	5	5	3J	6	6	3J	6	2J	3J	4J	3J	4J	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	100U	27	14	40U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	100U	10U	4U	40U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	110J	87	17	35J
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	10J	2J	20U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
Methyl-t-butyl ether	ug/L	N	70	10	10	9	11	9	7	9	8	5J	5	4	7	5	5	4	5	4	4	4	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	25U	3U	1U	10U
Methylcyclohexane	ug/L	N	100	1U	1J	1J	1J	2J	1U	1J	1J	1J	1J	1U	1U	1U	1J	1U	1U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	26	19	20U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	100U	10U	4U	40U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	40U	4U	2U	16U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	560	130	23	69J
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	40U	4U	2U	16U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	100U	10U	4U	40U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	50U	5U	2U	20U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	690	520	120	210
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243R	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254
			Sample Date	10/21/2008	06/16/2009	11/05/2009	06/18/2010	10/08/2010	05/24/2011	02/29/2012	03/28/2013	08/27/2014	02/02/2018	12/05/2006	05/11/2007	12/04/2007	07/23/2008	10/21/2008	06/16/2009	11/05/2009	06/18/2010	10/08/2010	05/24/2011	02/29/2012	03/11/2013	09/10/2014	02/27/2007	08/21/2007	02/20/2008	09/30/2008	03/06/2009	10/07/2009	03/18/2010	08/19/2010	04/28/2011	05/10/2012	05/31/2013	09/25/2014
			Field Sample ID	M243A5X	M243A6X	M243A7X	M243A8X-100618	M243A9X	M243B1X	M243B2X	M243B3X	M243B4X	M243RC2X	M244A1X	M244A2X	M244A3X	M244A4X	M244A5X	M244A6X	M244A7X	M244A8X-100618	M244A9X	M244B1X	M244B2X	M244B3X	M244B4X	M254A1X	M254A2X	M254A3X	M254A4X	M254A5X	M254A6X	M254A7X	M254A8X	M254A9X	M254B1X	M254B2X	M254B3X
			SDG	1116164	1149447	1169793	RFS47	RFS72	RFT24	RFU14	RFY40	CS147	CS640	1016740	1037974	1068129	1102068	1116164	1149447	1169793	RFS47	RFS72	RFT24	RFU14	RFX98	CS155	1027184	1052568	1078319	1112628	1135061	1165407	RFS34	RFS64	RFT14	RFU56	RFZ73	CS161
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	4U	16U	2U	0.8U	2U	4U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	4U	16U	2U	0.8U	2U	4U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	5U	20U	3U	1U	2U	5U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	4U	16U	2U	0.8U	2U	4U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	10U	40U	5U	2U	4U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	5U	20U	3U	1U	2U	5U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	5U	20U	3U	1U	2U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	10U	40U	5U	2U	4U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	5U	20U	3U	1U	2U	5U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	5U	20U	3U	1U	2U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	5U	20U	3U	1U	2U	5U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,2-Dichloropropane	ug/L	N	1	5U	20U	3U	1U	2U	5U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	5U	20U	3U	1U	2U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	5U	20U	3U	1U	2U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	15U	60U	8U	5J	6U	15U	3U	6J	3J	14J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	8J	3U	8J	7J	4J	6J	17	10J	3U	3U	6J	6J	6J
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	15U	60U	8U	3U	6U	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ
4-Methyl-2-pentanone	ug/L	N	100	15U	60U	8U	3U	6U	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ
Acetone	ug/L	N	6000	30U	120U	22J	17J	12U	30U	10J	25	12J	370J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	45	26	49	33	30	18J	51	54	34	39	19J	11J	
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	2600	1300	1800	3400	2900	2600	1000	690	370	8	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2J	0.5U	0.5U	0.5U	0.5U	0.5U	17	46	36	68	0.5U	7	9	4J	17	4J	3J	2	
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	5U	20U	3U	1U	2U	5U	1U	1U	0.5U	0.5U	5J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Bromoform	ug/L	N	4	5U	20U	3U	1U	2U	5U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	5U	20U	3U	1U	2U	5U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	5U	20U	3U	1U	2U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	5U	20U	3U	1U	2U	5U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Chlorobenzene	ug/L	N	50	4U	16U	2U	0.8U	2U	4U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	5U	20U	3U	1U	2U	5U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Chloroform	ug/L	N	70	4U	16U	2U	0.8U	2U	4U	0.8U	0.8U	0.5U	0.5U	34	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	5U	20U	3U	1U	2U	5U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	4U	16U	2U	0.8U	2U	4U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	5U	20U	3U	1U	2U	5U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Cyclohexane	ug/L	N	100	20J	40U	25	30	39	30	37	36	37J	36	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	100	160	120	130	2U	63	65	57	80	33	36	20	
Dibromochloromethane	ug/L	N	1	5U	20U	3U	1U	2U	5U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	10U	40U	5U	2U	4U	10U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	58	27J	53	70	78	41	47	35	30	4	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	5J	7	3J	3J	0.8U	0.9J	1J	0.8U	1J	0.8U	0.8U	0.5U	
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	5U	20U	5J	6	9J	5U	6	5	5	4J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	52	39	48	50	1U	39	35	32	34	35	39	30	
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	5U	20U	3U	1U	10U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	
Methyl-t-butyl ether	ug/L	N	70	3U	10U	1U	0.5U	1U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	2J	2J	3J	2J	0.5U	1J	1J	1J	2J	0.8J	1J	0.8J	
Methylcyclohexane	ug/L	N	100	16J	20U	24	31	33	29	34	38	33	26	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	170	150	170	150	1U	120	120	110	150	130	140	120	
Methylene chloride (Dichloromethane)	ug/L	N	3	10U	40U	5U	2U	4U	10U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	
Styrene	ug/L	N	100	5U	20U	3U	1U	2U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	4U	16U	2U	0.8U	2U	4U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Toluene	ug/L	N	600	150	63J	150	290	250	170	110	67	65	1	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	7	8	7	11	0.7U	4J	3J	3J	4J	3J	3J	3	
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	4U	16U	2U	0.8U	2U	4U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	5U	20U	3U	1U	2U	5U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	5U	20U	3U	1U	2U	5U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	10U	40U	5U	2U	4U	10U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	5U	20U	3U	1U	2U	5U	1U	1U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Xylene (total)	ug/L	N	1000	350	180	330	440	490	270	320	250	230	2	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	16	12	14	16	0.8U	9	9	8	9	6	6	5	
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-254	MW-254	MW-254	MW-254	MW-254	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259
			Sample Date	12/17/2015	05/27/2016	09/20/2016	12/15/2016	06/01/2017	03/01/2007	05/22/2007	12/05/2007	06/25/2008	10/24/2008	07/14/2009	11/10/2009	06/02/2010	09/14/2010	06/14/2011	06/14/2011	11/17/2011	04/26/2012	08/16/2012	04/19/2013	08/19/2013	09/24/2013	03/27/2014	09/12/2014	12/05/2014	01/14/2015	03/01/2007	05/22/2007	12/05/2007	06/26/2008	10/24/2008	07/14/2009	11/10/2009	06/02/2010	09/14/2010
			Field Sample ID	M254B4X	M254B5X	M254B6X	M254B7X	M254B8X	M258A1X	M258A2X	M258A3X	M258A4X	M258A5X	M258A6X	M258A7X	M258A8X-100602	M258A9X	D0614111	M258B1X	M258B2X	M258B3X	M258B4X	M258B5X	M258B6	M258B7X	M258B8X	M258B9X	M258C1X	M258C2X	M259A1X	M259A2X	M259A3X	M259A4X	M259A5X	M259A6X	M259A7X	M259A8X-100602	M259A9X
			SDG	CS331	CS407	CQ304	CQ489	CS565	1027540	1039429	1068390	1097890	1116797	1153395	1170404	RFS45	RFS67	RFT32	RFT32	RFT87	RFU49	RFV29	RFY97	CP078	CS014	CS077	CP506	CP617	CS194	1027540	1039429	1068390	1098093	1116797	1153395	1170404	RFS45	RFS67
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U	2U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U	2U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U	2U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	4U	4U	2U	4U	4U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	2U	2U	1U	2U	2U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	4U	4U	2U	4U	4U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	2U	2U	1U	2U	2U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	2U	2U	1U	2U	2U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	2U	2U	1U	2U	2U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	5J	7J	4J	9J	15U	10J	3U	11	4J	11	6U	3U	3U	12	12	3U	3U	8J	14	3U	9J	3U	3U	5J	3U	15U	9J	6U	8J	14J	6U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	15U	3U	3U	3U	3U	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15U	6U	6U	3U	6U	6U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	15U	3U	3U	3U	3U	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15U	6U	6U	3U	6U	6U	3U	3U	3U
Acetone	ug/L	N	6000	6UJ	6U	10J	11J	24	30U	43	28	41	23	40	12U	23	15J	35	35	10J	8J	26	40	6J	27	35	6U	18J	6U	30U	30J	47	34	62	12U	9J	11J	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3	3	2	3	8	590	490	290	430	270	410	280	370	310	370	350	300	350	280	380	300	290	450	270	370	300	190	120	120	150	300	100	100	130	150
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	2U	2U	1U	2U	2U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U	2U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U	2U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U	2U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U
Cyclohexane	ug/L	N	100	21	25	21	22	45	360	280	240	310	230	230	270	290	250	270	260	270	300	230	300	300	270	380	250	290	410	600	380	400	410	480	270	330	320	430
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	10U	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	10U	4U	4U	2U	4U	4U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.7J	0.7J	0.5U	0.7J	1	140	39	39	37	44	60	22	24	38	19	20	14	15	11	20	6	11	76	17	240	62	310	270	190	250	190	230	150	160	170
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	35	34	28	31	32	71	71	66	76	64	74	56	87	66	72	72	49	70	47	77	57	66	66	61	77	91	55	59	34	46	31	45	35	35	42
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	2U	2U	1U	2U	2U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	1	2	1	0.5U	2	4J	0.8J	0.5J	0.8J	0.6J	0.7J	1U	0.8J	0.8J	0.8J	0.8J	0.6J	0.7J	0.5U	0.7J	0.6J	0.6J	0.5U	0.6J	0.5U	0.5U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	150	130	130	120	140	190	180	150	160	140	130	110	150	130	140	140	150	150	130	200	100	150	240	130	280	370	630	440	590	600	550	290	490	360	650
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	9	2U	2U	2U	2U	2U	2U	2U	10U	4U	4U	2U	4U	4U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	2U	2U	1U	2U	2U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U	2U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	3	3	3	3	6	170	43	53	54	63	68	35	46	61	37	37	35	33	31	38	22	28	86	30	91	130	100	110	100	140	67	130	99	110	110
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5U	4U	0.8U	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	4U	2U	2U	0.8U	2U	2U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	2	0.5U	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5U	10U	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	10U	4U	4U	2U	4U	4U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	5U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	5U	2U	2U	1U	2U	2U	1U	1U	1U
Xylene (total)	ug/L	N	1000	6	5	6	5	7	1000	290	320	280	320	380	240	270	400	250	260	210	220	230	200	160	210	500	260	820	2200	2500	2000	2100	2200	2000	1500	1800	1800	2300
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	1800J+	2000J+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4500J+	-	-	3000J+	7000	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-261	MW-261	MW-261	MW-262	MW-262
			Sample Date	06/14/2011	11/17/2011	04/26/2012	08/09/2012	04/19/2013	08/19/2013	09/24/2013	03/27/2014	08/18/2014	12/05/2014	01/14/2015	09/15/2015	03/03/2016	12/20/2016	02/08/2017	08/22/2017	03/13/2007	05/10/2007	07/18/2008	11/04/2008	05/13/2009	11/06/2009	06/21/2011	11/15/2011	03/07/2012	08/21/2012	08/21/2012	03/26/2013	09/27/2013	05/28/2014	07/02/2015	03/07/2007	05/10/2007	12/11/2007	03/07/2007	05/15/2007
			Field Sample ID	M259B1X	M259B2X	M259B3X	M259B4X	M259B5X	M259B6	M259B7X	M259B8X	M259B9X	M259C1X	M259C2X	M259C3X	M259C4X	M259C5X	M259C6X	M259C7X	M260A1X	M260A2X	M260A3X	M260A4X	M260A5X	M260A6X	M260A7X	M260A8X	M260A9X	D082112 1	M260B1X	M260B2X	M260B4X	M260B5X	M260B6X	M261A1X	M261A2X	M261A3X	M262A1X	M262A2X
			SDG	RFT32	RFT87	RFU49	RFV27	RFY97	CP078	CS014	CS077	CP473	CP617	CS194	CP839	CS367	CS493	CS512	CS592	1029139	1037739	1101417	1118353	1144692	1170013	RFT35	RFT86	RFU15	RFV30	RFV30	RFY32	CS017	CS105	CS257	1028315	1037739	1069298	1028315	1038388
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	Report Units	Filtered	CMI GW Action Limit	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
1,1 Dichloroethene	ug/L	N	1	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	16U	20U	8U	20U	40U	16U	80U	16U	40U	8U	8U	40U	8U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1UJ	0.5U	16U	20U	8U	20U	40U	16U	80U	16U	40U	8U	8U	40U	8U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	5U	5U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	11	16U	20U	8U	20U	40U	16U	80U	16U	40U	8U	8U	40U	8U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	4U	2U	2U	5U	2U	2U	2U	5U	4U	2U	2U	2U	4U	4U	2U	40U	50U	20U	50U	100U	40U	200U	40U	100U	20U	20U	100U	20U	20U	20U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	2U	1U	1U	3U	1U	1J	0.5U	1U	1U	0.5U	1J	0.5U	1U	1U	0.5U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	5U	5U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	2U	1U	1U	3U	1U	1U	1U	3U	2U	1U	1U	1U	2U	2U	1U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	10U	10U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	4U	2U	2U	5U	2U	2U	2U	5U	4U	2U	2U	2U	4U	4U	2U	40U	50U	20U	50U	100U	40U	200U	40U	100U	20U	20U	100U	20U	20U	20U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	5U	5U	1U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	2U	1U	80	3U	1U	1U	1U	3U	2U	1U	1U	1U	2U	2U	1U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	10U	10U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	5U	5U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	5U	5U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	2U	1U	1U	3U	1U	1U	1U	3U	2U	1U	1U	1U	2U	2U	1U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	10U	10U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	2U	1U	1U	3U	1U	1U	1U	3U	2U	1U	1U	1U	2U	2U	1U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	10U	10U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	12	6U	8J	10J	8J	6J	7J	3U	8U	10J	3U	8J	11	6J	13J	3U	60U	75U	30U	75U	150U	60U	300U	60U	150U	30U	57J	150U	39J	46J	37J	7J	14	3U	3U	5J
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	6U	3U	3U	8U	3U	3U	3U	8U	6U	3U	3UJ	3U	6UJ	6U	11J	60U	75U	30U	75U	150U	60U	300U	60U	150U	30U	30U	150U	30U	30U	30U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	6U	3U	3U	8U	3U	3U	3U	8U	6U	3U	3U	3U	6U	6U	3U	60U	75U	30U	75U	150U	60U	300U	60U	150U	30U	30U	150U	30U	30U	30U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	14J	12J	14J	14J	15U	6U	6U	6U	15U	12U	6U	12J	20	15J	20J	12J	120U	150U	60U	190J	300U	120U	600U	220J	300U	120J	210	300U	130J	60U	160J	23	43	21	6U	10J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	140	150	160	180	210	260	160	160	170	210	380	260	230	370	290	270	36000	24000	7800	13000	13000	19000	18000	15000	19000	13000	14000	22000	14000	15000	15000	510	350	140	0.5J	1J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	5U	5U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	5U	5U	1U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1UJ	0.5U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	5U	5U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	2U	1U	1U	3U	1U	1U	1U	3U	2U	1U	1U	1U	2U	2U	1U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	10U	10U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	5U	5U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	16U	20U	8U	20U	40U	16U	80U	16U	40U	8U	8U	40U	8U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1UJ	0.5U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	5U	5U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	16U	20U	8U	20U	40U	16U	80U	16U	40U	8U	8U	40U	8U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	5U	5U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	16U	20U	8U	20U	40U	16U	80U	16U	40U	8U	8U	40U	8U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	5U	5U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	270	310	350	350	500	420	410	560	430	430	280	280	350	360	320	410	720	350	33J	190	370	160	220J	240	120J	190	240	300	190	300	180	220	170	180	2U	2U
Dibromochloromethane	ug/L	N	1	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	5U	5U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	4U	2U	2U	5U	2U	2U	0.5U	1U	1U	0.5U	0.5U	0.5U	1UJ	1U	0.5U	40U	50U	20U	50U	100U	40U	200U	40U	100U	20U	20U	100U	20U	5U	5U	2U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	160	66	82	90	110	68	83	88	54	54	72	54	100	71	93	130	400	250	47J	620	1000	590	590	660	800	660	750	770	660	950	700	24	24	10	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	44	27	32	38	37	29	39	45	31	29	36	30	41	37	44	47	26J	25U	10U	25U	50U	27J	100U	24J	50U	23J	29J	50U	26J	36J	26J	43	50	32	59	41
Methane	ug/L	N	NS	-	-	-	-	-	7500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	2U	1U	1U	3U	1U	1U	1U	3U	2U	1U	1U	1U	2U	2U	1U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	10U	10U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	1U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	10U	13U	5U	13U	25U	10U	50U	10U	25U	9J	9J	25U	7J	9J	9J	2J	0.7J	3J	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	260	340	520	560	720	370	620	590	600	480	250	270	280	220	140	250	560	250	43J	95J	190J	81J	150J	100	50U	80	100	160J	87	130	99	130	120	110	14	10
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	4U	2U	2U	5U	2U	2U	2U	5U	4U	2U	2U	2U	4U	4U	2U	40U	50U	20U	50U	100U	40U	200U	40U	100U	20U	20U	100U	20U	20U	20U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	2U	1U	1U	3U	1U	1U	1U	3U	2U	1U	1U	1U	2U	2U	1U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	10U	10U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	16U	20U	8U	20U	40U	16U	80U	16U	40U	8U	8U	40U	8U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	130	110	86	97	100	80	88	120	80	100	110	68	170	120	130	150	1700	1400	290	4500	7500	3500	4400	5000	6600	6500	6900	5600	5700	7700	5600	25	23	14	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	2U	0.8U	0.8U	2U	0.8U	0.8U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	16U	20U	8U	20U	40U	16U	80U	16U	40U	8U	8U	40U	8U	5U	5U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	5U	5U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	5U	5U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	4U	2U	2U	5U	2U	2U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1UJ	0.5U	40U	50U	20U	50U	100U	40U	200U	40U	100U	20U	20U	100U	20U	5U	5U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	2U	1U	1U	3U	1U	1U	0.5U	1U	1U	0.5U	0.5U	0.5U	1U	1U	0.5U	20U	25U	10U	25U	50U	20U	100U	20U	50U	10U	10U	50U	10U	5U	5U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	1900	1800	2000	2000	2800	1700	2000	2500	1900	2100	1500	1200	1800	1400	1400	2100	2400	1500	340	4300	6700	4000	4100	4300	5500	4300	5100	5000	4500	6300	4700	60	35	28	2J	1J
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	10000	-	-	9500	9800	-	11000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-264	MW-264
			Sample Date	12/19/2007	06/26/2008	11/11/2008	07/10/2009	11/20/2009	05/14/2010	09/23/2010	06/21/2011	03/21/2012	05/06/2013	06/20/2013	06/20/2013	10/01/2013	07/02/2014	07/31/2014	08/29/2014	01/16/2015	11/28/2017	03/09/2007	05/17/2007	12/13/2007	07/01/2008	10/21/2008	07/07/2009	11/24/2009	06/02/2010	09/21/2010	06/07/2011	03/09/2012	04/09/2013	05/29/2014	06/08/2016	05/08/2017	03/09/2007	05/16/2007
			Field Sample ID	M262A3X	M262A4X	M262A5X	M262A6X	M262A7X	M262A8X-100514	M262A9X	M262B1X	M262B2X	M262B3X	M262B4X	M262B4X	M262B5X	M262B6X	M262B7X	M262B8X	M262B9X	M262C3X	M263A1X	M263A2X	M263A3X	M263A4X	M263A5X	M263A6X	M263A7X	M263A8X-100602	M263A9X	M263B1X	M263B2X	M263B3X	M263B4X	M263B5X	M263B6X	M264A1X	M264A2X
			SDG	1070580	1098093	1119533	1153027	1172227	RFS42	RFS68	RFT35	RFU27	RFZ29	CP009	CP010	CS019	CP401	CP438	CS149	CP644	CQ906	1028748	1038811	1069705	1098780	1116164	1152446	1172674	RFS45	RFS68	RFT29	RFU16	RFY63	CS106	CS412	CS556	1028748	1038619
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.8U	0.8U	4U	8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.8U	0.8U	4U	8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	0.5U	0.5U	-	0.5U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.8U	0.8U	4U	8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	-	-	2U	2U	-	-	2U	2U	-	2U	2U	2U	2U	10U	20U	5U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	10U	20U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	0.5U	0.5U	-	0.5U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	1U	1U	-	1U	1U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	-	-	2U	2U	-	-	2U	2U	-	2U	2U	2U	2U	10U	20U	5U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	10U	20U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	0.5U	0.5U	-	0.5U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	1U	1U	-	1U	1U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	0.5U	0.5U	-	0.5U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	0.5U	0.5U	-	0.5U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	1U	1U	-	1U	1U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	1U	1U	-	1U	1U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	5J	3U	-	-	3J	3U	-	-	3J	3U	-	3U	3U	5J	5J	15U	30U	8U	7J	7J	3U	4J	6J	5J	9J	-	5J	6J	15U	30U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	-	-	3U	3U	-	-	3U	3U	-	3U	3UJ	3U	3U	15U	30U	8U	3U	3U	3U	3U	3U	3U	3U	3U	-	3UJ	3U	15U	30U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	-	-	3U	3U	-	-	3U	3U	-	3U	3U	3U	7J	15U	30U	8U	3U	3U	3U	3U	3U	3U	3U	3U	-	3UJ	3U	15U	30U
Acetone	ug/L	N	6000	9J	6U	6U	6U	6U	8J	6U	-	-	7J	6U	-	-	13J	6U	-	6U	6U	23	18J	30U	60U	15U	25	31	6U	19J	18J	26	30	-	25	27	30U	60U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.6J	0.5J	0.5U	0.5U	0.8J	0.5U	2J	1J	11	9	20	-	37	14	14	47	5	22	89	64	59	63	60	64	99	66	86	64	58	75	60	95	65	20J	10J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	0.5U	0.5U	-	0.5U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	0.5U	0.5U	-	0.5U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1UJ	-	-	0.5U	0.5U	-	0.5U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5UJ	0.5U	5U	10U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	2J	1U	-	1U	1U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	0.5U	0.5U	-	0.5U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.8U	0.8U	4U	8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1UJ	-	-	0.5U	0.5U	-	0.5U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	-	-	0.5U	0.5U	-	0.5U	0.5U	1J	0.8U	4U	8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	0.5U	0.5U	-	0.5U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.8U	0.8U	4U	8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	0.5U	0.5U	-	0.5U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	45	2U	2U	2U	-	-	14U	3J	-	-	8	4J	-	3J	2U	33	27	22J	27J	10J	22	30	3J	34	26	28	33	-	32	18	40	51
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	0.5U	0.5U	-	0.5UJ	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	-	-	2U	2U	-	-	0.5U	0.5U	-	0.5U	0.5U	2U	2U	10U	20U	5U	2U	2U	2U	2U	2U	2U	2U	2U	-	0.5U	0.5U	10U	20U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.9J	2J	-	4J	2	3	5	0.9J	0.7J	81	42	61	60	39	64	73	29	52	41	40	38	26	24	18	4U	8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	61	7	30	51	53	51	38	-	-	6	2J	-	-	2J	1J	-	1J	2J	5J	3J	6J	10U	3J	7	6	1J	5J	5J	5	7	-	8	6	6J	10U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	1U	1U	-	1U	1U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	0.5U	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	3U	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	3U	5U
Methylcyclohexane	ug/L	N	100	16	1U	1U	9	12	11	1U	-	-	5	3J	-	-	6	4J	-	1J	2J	28	24	13J	21J	6J	16	21	1U	26	20	22	26	-	24	14	16J	20J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	-	-	2U	2U	-	-	2U	2U	-	2U	0.5U	2J	2U	10U	20U	5U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	10U	20U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	1U	1U	-	1U	1U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	5U	10U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.8U	0.8U	4U	8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U
Toluene	ug/L	N	600	0.8J	0.7U	0.7U	0.7U	0.8J	0.7U	1J	0.7U	3J	1J	2J	-	7	4	3	7	0.5U	0.6J	3J	2J	4U	7U	4J	9	12	4J	9	7	5	4J	5U	3	3	150	190
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	0.8U	0.8U	-	-	0.5U	0.5U	-	0.5U	0.5U	0.8U	0.8U	4U	8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	0.5U	0.5U	4U	8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	0.5U	0.5U	-	0.5U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	0.5U	0.5U	-	0.5U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	-	-	2U	2U	-	-	0.5U	0.5U	-	0.5U	0.5U	2U	2U	10U	20U	5U	2U	2U	2U	2U	2U	2U	2U	2U	-	0.5U	0.5U	10U	20U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	1U	1U	-	-	0.5U	0.5U	-	0.5U	0.5U	1U	1U	5U	10U	3U	1U	1U	1U	1U	1U	1U	1U	1U	-	0.5U	0.5U	5U	10U
Xylene (total)	ug/L	N	1000	2J	0.8U	0.9J	1J	2J	1J	2J	1J	5J	3J	3J	-	13	7	6	11	2	2	79	29	18J	41J	26	60	65	13	53	44	35	23	15	11	6	41	41J
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	280	-	350	-	-	270J	-	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265
			Sample Date	12/05/2007	07/24/2008	10/21/2008	06/26/2009	10/27/2009	06/15/2010	09/16/2010	05/24/2011	02/29/2012	03/21/2013	09/10/2014	12/04/2015	06/10/2016	07/22/2016	05/11/2017	03/09/2007	05/16/2007	12/06/2007	07/24/2008	11/06/2008	06/17/2009	11/19/2009	06/15/2010	09/16/2010	05/24/2011	11/17/2011	02/28/2012	08/21/2012	03/28/2013	08/16/2013	09/27/2013	09/27/2013	02/07/2014	11/13/2014	07/02/2015
			Field Sample ID	M264A3X	M264A4X	M264A5X	M264A6X	M264A7X	M264A8X-100615	M264A9X	M264B1X	M264B2X	M264B3X	M264B4X	M264B5X	M264B6X	M264B7X	M264B8	M265A1X	M265A2X	M265A3X	M265A4X	M265A5X	M265A6X	M265A7X	M265A8X-100615	M265A9X	M265B1X	M265B2X	M265B3X	M265B4X	M265B5X	M265B6	D0927131	M265B7X	M265B8X	M265B9X	M265C1X
			SDG	1068390	1102261	1116164	1151128	1168255	RFS47	RFS67	RFT24	RFU14	RFY20	CS155	CP946	CS414	CQ194	CS558	1028748	1038619	1068623	1102261	1118813	1149895	1171988	RFS47	RFS67	RFT24	RFT87	RFU13	RFV30	RFY40	CP076	CS017	CS017	CS060	CS185	CS257
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U	5U	0.5UJ	5U	0.5U	5U	80U	2U	360J	16U	20U	2U	40U	40U	80U	40U	80U	4U	20U	2U	40U	40U	40U	40U	10U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U	5U	0.5UJ	5U	0.5U	5U	80U	2U	160U	16U	20U	2U	40U	40U	80U	40U	80U	4U	20U	2U	40U	40U	40U	40U	10U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	10U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U	5U	0.5UJ	5U	0.5U	5U	80U	2U	160U	16U	20U	2U	40U	40U	80U	40U	80U	4U	20U	2U	40U	40U	40U	40U	10U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	20U	20U	10U	50U	20U	20U	2U	20U	20U	2U	20U	2UJ	20U	2U	20U	200U	4U	400U	40U	50U	5U	100U	100U	200U	100U	200U	10U	50U	4U	100U	100U	100U	100U	40U	2U
1,1-Dichloroethane	ug/L	N	50	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	10U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	10U	1UJ	10U	1U	10U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	20U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	20U	20U	10U	50U	20U	20U	2U	20U	20U	2U	20U	2UJ	20U	2U	20U	200U	4U	400U	40U	50U	5U	100U	100U	200U	100U	200U	10U	50U	4U	100U	100U	100U	100U	40U	2U
1,2-Dibromoethane	ug/L	N	0	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	10U	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	10U	1UJ	10U	1U	10U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	20U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	10U	0.5U
1,2-Dichloropropane	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	10U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	10U	1UJ	10U	1U	10U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	20U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	10U	1UJ	10U	1U	10U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	20U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	30U	30U	15U	75U	30U	63J	3U	41J	30U	30	30U	3UJ	30U	3U	30U	300U	26	600U	74J	1000	21J	150U	350J	300U	150U	300U	15U	130J	26	340J	150U	150U	150U	120J	4J
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	30U	30U	15U	75U	30U	30U	3U	30U	30U	3U	30U	3UJ	30U	3U	30U	300U	15J	600U	60U	140J	8U	150U	150U	300U	150U	300U	15U	75U	6U	150U	150U	150U	150U	60U	3U
4-Methyl-2-pentanone	ug/L	N	100	30U	30U	15U	75U	30U	30U	3U	30U	30U	3U	30U	3UJ	30U	3U	30U	300U	15J	600U	60U	75U	8U	150U	150U	300U	150U	300U	15U	75U	6U	150U	150U	150U	150U	60U	3U
Acetone	ug/L	N	6000	60U	60U	30U	150U	60U	60U	6U	91J	60U	38	60U	45J+	60U	6U	60U	600U	55	1200U	120U	1300	52	300U	300U	600U	300U	600U	30U	160J	64	640J	300U	300U	300U	120U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	9J	9J	3U	13U	5U	5U	1J	5U	5U	3J	8J	0.8J	5U	2	5U	75000	3400	110000	20000	21000	3100	19000	95000	110000	80000	66000	3300	29000	5300	97000	48000	45000	63000	20000	220
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	10U	0.5U
Bromoform	ug/L	N	4	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	10U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5UJ	5U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	10U	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	10U	1UJ	10U	1U	10U	100U	2J	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	20U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	10U	0.5U
Chlorobenzene	ug/L	N	50	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U	5U	0.5UJ	5U	0.5U	5U	80U	2U	160U	16U	20U	2U	40U	40U	80U	40U	80U	4U	20U	2U	40U	40U	40U	40U	10U	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	10U	0.5U
Chloroform	ug/L	N	70	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U	5U	0.5UJ	5U	0.5U	5U	80U	2U	160U	16U	20U	2U	40U	40U	80U	40U	80U	4U	20U	2U	40U	40U	40U	40U	10U	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	10U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U	5U	0.5UJ	5U	0.5U	5U	80U	2U	160U	16U	20U	2U	40U	40U	80U	40U	80U	4U	20U	2U	40U	40U	40U	40U	10U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	10U	0.5U
Cyclohexane	ug/L	N	100	76	47J	18J	50U	37J	56	42	66	79	95	50	30J	58	57	47J	200U	150	400U	120	81J	130	140J	110J	200U	140J	200U	170	140	140	100U	150J	140J	260	210	270
Dibromochloromethane	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	10U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	20U	20U	10U	50U	20U	20U	2U	20U	20U	2U	5U	0.5UJ	5U	0.5U	5U	200U	4U	400U	40U	50U	5U	100U	100U	200U	100U	200U	10U	50U	4U	100U	100U	100U	100U	10U	0.5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	8U	8U	4U	20U	8U	8U	0.8U	8U	8J	8	5J	0.6J	5U	4	5U	200J	65	230J	87J	51J	32	88J	210J	220J	210J	160J	4U	100J	37	120J	170J	170J	320	64	8
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	15J	10U	5U	25U	10U	10U	6	10U	12J	13	10U	6J	11J	9	10U	100U	12	200U	20U	25U	7J	50U	50U	100U	50U	100U	5U	25U	8J	50U	50U	50U	50U	20U	5J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21000	-	-	-	-	-
Methyl acetate	ug/L	N	7000	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	10U	1UJ	10U	1U	10U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	20U	1U
Methyl-t-butyl ether	ug/L	N	70	5U	5U	3J	13U	5U	5U	3J	5U	5U	2J	5U	2J	5U	1	5U	50U	1U	100U	10U	13U	1U	25U	25U	50U	25U	50U	3U	13U	1U	25U	25U	25U	25U	10U	0.5U
Methylcyclohexane	ug/L	N	100	24J	17J	5U	25U	17J	24J	8	33J	42J	48	29J	10J	31J	27	25J	140J	100	200U	64J	140	64	58J	54J	130J	61J	100U	90	65J	82	50U	64J	61J	160J	110	280
Methylene chloride (Dichloromethane)	ug/L	N	3	20U	20U	10U	50U	20U	20U	2U	20U	20U	2U	20U	2UJ	20U	2U	20U	200U	4U	400U	40U	50U	5U	100U	100U	200U	100U	200U	10U	50U	4U	100U	100U	100U	100U	40U	2U
Styrene	ug/L	N	100	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	10U	1UJ	10U	1U	10U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	20U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U	5U	0.5UJ	5U	0.5U	5U	80U	2U	160U	16U	20U	2U	40U	40U	80U	40U	80U	4U	20U	2U	40U	40U	40U	40U	10U	0.5U
Toluene	ug/L	N	600	300	340	31	280	290	280	12	280	470	440	320	34J	350	280	330	2400	310	3300	650	420	110	650	3400	4000	2900	2200	80	1000	230	2500	1800	1700	3300	650	16
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	8U	8U	4U	20U	8U	8U	0.8U	8U	8U	0.8U	5U	0.5UJ	5U	0.5U	5U	80U	2U	160U	16U	20U	2U	40U	40U	80U	40U	80U	4U	20U	2U	40U	40U	40U	40U	10U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	10U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	10U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	20U	20U	10U	50U	20U	20U	2U	20U	20U	2U	5U	0.5UJ	5U	0.5U	5U	200U	4U	400U	40U	50U	5U	100U	100U	200U	100U	200U	10U	50U	4U	100U	100U	100U	100U	10U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	10U	10U	5U	25U	10U	10U	1U	10U	10U	1U	5U	0.5UJ	5U	0.5U	5U	100U	2U	200U	20U	25U	3U	50U	50U	100U	50U	100U	5U	25U	2U	50U	50U	50U	50U	10U	0.5U
Xylene (total)	ug/L	N	1000	75	63	17J	32J	58	68	16	61	86	89	64	19J	86	90	86	1400	650	1400	610	370	140	550	1500	1500	1500	1200	85	770	260	780	1400	1400	2700	420	45
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	1200	-	2600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300000	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-265	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-268
			Sample Date	11/01/2017	03/09/2007	05/22/2007	12/07/2007	06/26/2008	10/24/2008	07/16/2009	11/10/2009	06/02/2010	09/14/2010	06/14/2011	04/26/2012	04/11/2013	08/20/2013	08/15/2014	12/04/2014	12/04/2014	01/30/2018	03/07/2007	05/23/2007	12/11/2007	07/18/2008	10/28/2008	07/21/2009	11/06/2009	09/21/2010	06/07/2011	11/15/2011	03/07/2012	08/21/2012	03/26/2013	09/27/2013	05/28/2014	07/22/2015	03/01/2007
			Field Sample ID	M265C7	M266A1X	M266A2X	M266A3X	M266A4X	M266A6X	M266A7X	M266A8X	M266A9X-100602	M266B1X	M266B2X	M266B3X	M266B4X	M266B5	D0814148	D1204148	M266B8X	M266C7X	M267A1X	M267A2X	M267A3X	M267A4X	M267A5X	M267A6X	M267A7X	M267A9X	M267B2X	M267B3X	M267B4X	M267B5X	M267B6X	M267B7X	M267B8X	M267B9X	M268A1X
			SDG	CS620	1028748	1039429	1068893	1098093	1116797	1153802	1170404	RFS45	RFS67	RFT32	RFU49	RFY73	CP079	CP460-CP461	CP613	CP613	CS639	1028315	1039651	1069298	1101417	1117175	1154382	1170013	RFS68	RFT29	RFT86	RFU15	RFV30	RFY32	CS017	CS105	CS266	1027540
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	8U	8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.5U	0.5UJ	0.8U
1,1,1-Trichloroethane	ug/L	N	30	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	8U	8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.5U	0.5UJ	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	0.5U	0.5U	0.5U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	0.5U	0.5UJ	1U
1,1,2-Trichloroethane	ug/L	N	3	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	8U	8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.5U	0.5UJ	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	-	2U	2U	2U	20U	20U	20U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2UJ	2U
1,1-Dichloroethane	ug/L	N	50	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	0.5U	0.5U	0.5U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	0.5U	0.5UJ	1U
1,2,4-Trichlorobenzene	ug/L	N	9	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1UJ	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	20UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	-	2U	2U	2U	20U	20U	20U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2UJ	2U
1,2-Dibromoethane	ug/L	N	0	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	0.5U	0.5U	0.5U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	0.5U	0.5UJ	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1UJ	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	0.5U	0.5U	0.5U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	0.5U	0.5UJ	1U
1,2-Dichloropropane	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	0.5U	0.5U	0.5U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	0.5U	0.5UJ	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1UJ	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1UJ	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	30U	3U	3J	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	-	3U	3U	3U	30U	30U	30U	3U	3U	3U	3U	3U	15U	3U	3U	3U	3UJ	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	-	3U	3U	3U	30U	30U	30U	3U	3U	3U	3U	3U	15U	3U	3U	3U	3UJ	3U
4-Methyl-2-pentanone	ug/L	N	100	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	3U	3U	-	3U	3U	3U	30U	30U	30U	3U	3U	3U	3U	3U	15U	3U	3U	3U	3UJ	3U
Acetone	ug/L	N	6000	60U	6J	16J	6U	6J	6U	6U	6U	6U	6U	-	-	-	6U	6U	6U	6U	-	6U	8J	6U	60U	60U	60U	6U	6U	6U	6U	10J	30U	6U	6U	6U	6UJ	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	23000	240	130	170	77	110	130	98	60	150	110	24	140	100	22	34	32	5	28	28	22	13J	5J	11J	12	10	11	5	8	5J	5	1J	1	0.5UJ	47
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	0.5U	0.5U	0.5U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	0.5U	0.5UJ	1U
Bromoform	ug/L	N	4	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	0.5U	0.5U	0.5U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	0.5U	0.5UJ	1U
Bromomethane (Methyl bromide)	ug/L	N	10	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	0.5U	0.5U	0.5U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	0.5U	0.5UJ	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	10U	1U	1U	1U	1U	1U	1J	1U	1U	1U	-	-	-	1U	1U	1U	1U	-	1U	1U	1U	10U	10U	10U	1U	1J	1U	1J	1U	5U	1U	1J	1J	1UJ	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	0.5U	0.5U	0.5U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	0.5U	0.5UJ	1U
Chlorobenzene	ug/L	N	50	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	8U	8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.5U	0.5UJ	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	0.5U	0.5U	0.5U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	0.5U	0.5UJ	1U
Chloroform	ug/L	N	70	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	8U	8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.5U	0.5UJ	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	0.5U	0.5U	0.5U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	0.5U	0.5UJ	1U
cis-1,2-Dichloroethene	ug/L	N	70	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	8U	8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.5U	0.5UJ	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	0.5U	0.5U	0.5U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	0.5U	0.5UJ	1U
Cyclohexane	ug/L	N	100	170	48	19	21	34	16	33	29	31	33	-	-	-	19	8	21	19	-	24	10	13	20U	20U	20U	11	9	12	4J	6	10U	5J	2J	4J	2UJ	26
Dibromochloromethane	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	0.5U	0.5U	0.5U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	0.5U	0.5UJ	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	0.5U	0.5U	0.5U	-	2U	2U	2U	20U	20U	20U	2U	2U	2U	2U	2U	10U	2U	2U	0.5U	0.5UJ	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	67	180	130	95	140	93	140	200	150	320	140	30	100	91	29	27	25	4	0.8U	0.8U	0.8U	8U	8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.5U	0.5UJ	33
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	10U	27	16	13	26	10	18	19	18	25	-	-	-	28	9	18	18	-	1J	1U	1J	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1UJ	29
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	14000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1UJ	1U
Methyl-t-butyl ether	ug/L	N	70	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	5U	5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5UJ	0.7J
Methylcyclohexane	ug/L	N	100	85	25	10	11	22	9	21	20	19	22	-	-	-	9	3J	9	8	-	11	4J	5	10U	10U	10U	4J	4J	4J	1J	1J	5U	1J	1U	1J	1UJ	15
Methylene chloride (Dichloromethane)	ug/L	N	3	5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	2U	2U	-	2U	2U	2U	20U	20U	20U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2UJ	2U
Styrene	ug/L	N	100	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	1U	1U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1UJ	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	8U	8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.5U	0.5UJ	0.8U
Toluene	ug/L	N	600	990	130	140	120	110	120	200	260	140	420	170	22	76	7	45	46	44	9	2J	2J	2J	7U	7U	7U	1J	0.9J	1J	0.7U	0.8J	4U	0.8J	0.7U	0.7J	0.5UJ	31
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.8U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	8U	8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	4U	0.8U	0.8U	0.5U	0.5UJ	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	0.5U	0.5U	0.5U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	0.5U	0.5UJ	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	0.5U	0.5U	0.5U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	0.5U	0.5UJ	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	0.5U	0.5U	0.5U	-	2U	2U	2U	20U	20U	20U	2U	2U	2U	2U	2U	10U	2U	2U	0.5U	0.5UJ	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	0.5U	0.5U	0.5U	-	1U	1U	1U	10U	10U	10U	1U	1U	1U	1U	1U	5U	1U	1U	0.5U	0.5UJ	1U
Xylene (total)	ug/L	N	1000	590	910	690	760	850	790	1100	1300	800	1700	840	360	680	450	230	190	180	60	25	22	16	8U	8U	10J	15	12	15	8	9	6J	8	3J	5	0.5UJ	590
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	2300	1000	1600	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273
			Sample Date	05/17/2007	12/07/2007	06/26/2008	10/24/2008	07/16/2009	11/10/2009	06/02/2010	09/14/2010	06/07/2011	04/24/2012	04/11/2013	08/15/2014	12/10/2014	07/08/2015	03/01/2007	05/15/2007	12/18/2007	06/24/2008	11/18/2008	07/10/2009	11/20/2009	05/14/2010	09/23/2010	06/21/2011	03/21/2012	03/15/2007	03/15/2007	05/10/2007	12/11/2007	07/23/2008	11/04/2008	05/13/2009	11/10/2009	06/08/2011
			Field Sample ID	M268A2X	M268A3X	M268A4X	M268A5X	M268A6X	M268A7X	M268A8X-100602	M268A9X	M268B1X	M268B2X	M268B3X	M268B6X	M268B8X	M268B9X	M269A1X	M269A2X	M269A3X	M269A4X	M269A5X	M269A6X	M269A7X	M269A8X-100514	M269A9X	M269B1X	M269B2X	D0315071	M273A1X	M273A2X	M273A3X	M273A4X	M273A5X	M273A6X	M273A7X	M273A8X
			SDG	1038811	1068893	1098093	1116797	1153802	1170404	RFS45	RFS67	RFT29	RFU46	RFY73	CP460-CP461	CP622	CS258	1027540	1038388	1070339	1097656	1120766	1153027	1172227	RFS42	RFS68	RFT35	RFU27	1029581	1029581	1037739	1069298	1102068	1118353	1144692	1170404	RFT30
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	Report Units	Filtered	CMI GW Action Limit	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	3U	3U	2U	2U	8U	2U	8U	20U	2U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	3U	3U	2U	2U	8U	2U	8U	20U	2U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	3U	3U	2U	2U	8U	2U	8U	20U	2U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	8U	8U	4U	4U	20U	5U	20U	50U	4U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	8U	8U	4U	4U	20U	5U	20U	50U	4U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	17J	18J	29	9J	30U	9J	30U	75U	8J
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	12U	12U	6U	6U	30U	8U	30U	75U	6U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	3U	3U	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	12U	12U	8J	6U	30U	8U	30U	75U	6U
Acetone	ug/L	N	6000	12J	6U	7J	6U	6U	6U	6U	6J	-	-	-	6U	6U	-	6U	10J	6U	6U	6U	6U	6U	6U	6U	-	-	69J	73J	95	33J	60U	32J	60U	150U	19J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	6	16	3J	10	8	6	0.8J	5J	1J	6	0.5J	0.8J	0.5U	0.5U	0.5U	9	0.5J	0.8J	0.8J	2J	0.5U	0.5U	0.7J	0.5U	0.5U	1600	1500	940	1300	550	670	1300	1000	1300
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	3U	3U	2U	2U	8U	2U	8U	20U	2U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	3U	3U	2U	2U	8U	2U	8U	20U	2U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	3U	3U	2U	2U	8U	2U	8U	20U	2U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
Cyclohexane	ug/L	N	100	5	11	4J	5J	3J	6	3J	7	-	-	-	3J	4J	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	440	420	680	390	430	410	330	290	320
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	0.5U	0.5U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	8U	8U	4U	4U	20U	5U	20U	50U	4U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	2J	19	1J	5J	3J	2J	0.9J	8	1J	8	0.8U	0.7J	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.9J	0.9J	0.8U	0.8U	0.8U	0.8U	0.8U	670	590	530	550	280	320	500	360	490
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	2J	17	2J	3J	3J	3J	2J	13	-	-	-	20	16	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	30	27	27	26	19J	22	25J	25U	31
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	13J	14J	11	18	11J	13	18J	18J	18
Methylcyclohexane	ug/L	N	100	2J	6	2J	3J	2J	3J	1J	4J	-	-	-	1U	1J	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	210	220	340	200	270	250	240	170	170
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	2U	2U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	8U	8U	4U	4U	20U	5U	20U	50U	4U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	3U	3U	2U	2U	8U	2U	8U	20U	2U
Toluene	ug/L	N	600	3J	19	5J	13	9	9	3J	17	3J	14	0.8J	5	2	0.6J	0.7U	1J	0.9J	1J	1J	0.7U	0.7U	0.7U	0.9J	0.7U	0.7U	780	690	570	420	210	270	540	390	480
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	3U	3U	2U	2U	8U	2U	8U	20U	2U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	0.5U	0.5U	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	8U	8U	4U	4U	20U	5U	20U	50U	4U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	4U	4U	2U	2U	10U	3U	10U	25U	2U
Xylene (total)	ug/L	N	1000	44	450	90	270	150	230	74	340	86	410	22	96	63	7	0.8U	0.8U	0.8U	0.8U	2J	2J	0.8U	0.8U	1J	0.8U	0.8U	3400	3000	2600	2200	1400	1600	2800	2200	3100
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	410	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-281	MW-281	MW-281	MW-281	MW-281	MW-281	MW-281	MW-281	MW-281	MW-281	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-310	MW-310
			Sample Date	11/15/2011	03/07/2012	08/09/2012	03/27/2013	09/27/2013	05/28/2014	05/28/2014	07/02/2015	07/26/2011	11/17/2011	11/17/2011	03/09/2012	08/09/2012	03/21/2013	09/26/2013	05/30/2014	01/14/2015	11/01/2017	10/21/2002	02/27/2003	09/23/2004	05/25/2005	10/27/2005	06/09/2006	11/09/2006	05/23/2007	12/12/2007	07/31/2008	06/03/2009	04/29/2010	06/28/2011	03/22/2012	02/27/2013	04/01/2014	10/07/2010	03/29/2012
			Field Sample ID	M273A9X	M273B1X	M273B2X	M273B3X	M273B4X	D0528141	M273B5X	M273B6X	M281A1X	D1117111	M281A2X	M281A3X	M281A4X	M281A5X	M281A6X	M281A7X	M281A8X	M281B3	M003A2Y	M003A3Y	M003A4	M003A5	M003A6X	M003A7	M003A8	M003A9	M003B1	M003B2X	M003B3X	M003B4X	M003B5X	M003B6X	M003B7X	M003B8X	M310A1	M310A2X
			SDG	RFT86	RFU15	RFV27	RFY36	CS017	CS105	CS105	CS257	RFT46	RFT87	RFT87	RFU16	RFV27	RFY20	CS016	CS107	CS194	CS620	RFE33	RFE65	RFF25	RFF55	965062	993031	1013690	1039652	1069481	1103309	1147599	RFS40	RFT37	RFU28	RFX80	CS079	RFS71	RFU34
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	FD	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	4U	4U	4U	4U	8U	1U	1U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	4U	4U	4U	4U	8U	1U	1U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	5U	5U	5U	5U	10U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	4U	4U	4U	4U	8U	1U	1U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	10U	10U	10U	10UJ	20U	4U	4U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U
1,1-Dichloroethane	ug/L	N	50	5U	5U	5U	5U	10U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	5U	5U	5U	5U	10U	2U	2U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	10U	10U	10U	10U	20U	4U	4U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U
1,2-Dibromoethane	ug/L	N	0	5U	5U	5U	5U	10U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	5U	5U	5U	5U	10U	2U	2U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	5U	5U	5U	5U	10U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
1,2-Dichloropropane	ug/L	N	1	5U	5U	5U	5U	10U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	5U	5U	5U	5U	10U	2U	2U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	5U	5U	5U	5U	10U	2U	2U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	15U	15U	15U	15U	30U	6U	6U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	15U	15U	15U	15U	30U	6U	6U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	15U	15U	15U	15U	30U	6U	6U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	3U	3U
Acetone	ug/L	N	6000	30U	48J	30U	32J	60U	12U	12U	60U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	23	6U	17J	9J	6U	6U	6J	6U	7J	-	-	-	-	-	-	-	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1200	1900	1400	2000	1500	1600	1600	1300	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3J	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	5U	5U	5U	5U	10U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
Bromoform	ug/L	N	4	5U	5U	5U	5U	10U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	5U	5U	5U	5U	10U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	5U	5U	5U	5UJ	10U	2U	2U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	5U	5U	5U	5U	10U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
Chlorobenzene	ug/L	N	50	4U	4U	4U	4U	8U	1U	1U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	5U	5U	5U	5U	10U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
Chloroform	ug/L	N	70	4U	4U	4U	4U	8U	1U	1U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	5U	5U	5U	5U	10U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	4U	4U	4U	4U	8U	1U	1U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	5U	5U	5U	5U	10U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
Cyclohexane	ug/L	N	100	230	300	250	280	170	230	230	200	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	11	2U
Dibromochloromethane	ug/L	N	1	5U	5U	5U	5U	10U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	10U	10U	10U	10U	20U	1U	1U	5U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	430	730	480	620	530	660	650	430	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	24J	36	30	40	32J	43	43	34J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	5U	5U	5U	5U	10U	2U	2U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
Methyl-t-butyl ether	ug/L	N	70	15J	17J	17J	17J	12J	8J	8	9J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	120	150	150	180	100	130	130	130	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	11	2J
Methylene chloride (Dichloromethane)	ug/L	N	3	10U	10U	10U	10U	20U	4U	4U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U
Styrene	ug/L	N	100	5U	5U	5U	5U	10U	2U	2U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	4U	4U	4U	4U	8U	1U	1U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U
Toluene	ug/L	N	600	370	610	340	620	410	470	470	230	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.9J	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	4U	4U	4U	4U	8U	1U	1U	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	5U	5U	5U	5U	10U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	5U	5U	5U	5U	10U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	10U	10U	10U	10U	20U	1U	1U	5U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	5U	5U	5U	5U	10U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	1U	1U
Xylene (total)	ug/L	N	1000	2800	4200	2900	4000	3000	3900	3900	2900	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	5J	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-310	MW-310	MW-312	MW-312	MW-312	MW-312	MW-312	MW-314	MW-314	MW-314	MW-314	MW-314	MW-314	MW-315	MW-315	MW-315	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322
			Sample Date	04/01/2013	02/07/2014	10/07/2010	10/07/2010	04/26/2012	10/01/2013	08/27/2014	06/24/2010	07/08/2010	03/28/2012	04/11/2013	03/28/2014	01/30/2018	06/24/2010	07/08/2010	03/21/2012	03/15/2012	05/16/2012	05/17/2012	07/30/2012	07/31/2012	11/19/2012	02/19/2013	06/12/2013	09/05/2013	11/07/2013	03/12/2014	05/19/2014	08/04/2014	10/29/2014	03/03/2015	06/08/2015	09/14/2015	10/13/2017
			Field Sample ID	M310A3X	M310A4X	D1007103	M312A1	M312A2X	M312A3X	M312A4X	M314A1X-100624	M314A2X-100708	M314A3X	M314A5X	M314A6X	M314B6X	M315A1X-100624	M315A2X-100708	M315A3X	M322A1X	M322A2	M322A2X	M322A3	M322A3X	M322A4	M322A5	M322A6	M322A7	M322A9	M322B1	M322B2	M322B3	M322B4	M322B5	M322B6	M322B7	M322C9
			SDG	RFY49	CS060	RFS71	RFS71	RFU49	CS019	CS147	RFS49	RFS53	RFU32	RFY73	CS078	CS639	RFS49	RFS53	RFU27	RFU22	RFU65	RFU66	RFV20	RFV21	RFX09	RFX66	RFB02	CS005	CS041	CS073	CS100	CS135	CS178	CS205	CS248	CS283	CS617
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	40U	2U	2U	2U	2U	2UJ	10U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U	1U	1U	1U	1UJ	5U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	40U	2U	2U	2U	2U	2UJ	10U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U	1U	1U	1U	1UJ	5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U	1U	1U	1U	1UJ	5U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U	1U	1U	1U	1UJ	5U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	60U	3U	3U	3U	3U	3UJ	15U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UZ	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	60U	3U	3U	3U	3U	3UJ	15U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	60U	3U	3U	3U	3U	3UJ	15U
Acetone	ug/L	N	6000	6U	6U	10J	9J	7J	6U	6U	6U	7J	6U	6U	6U	7J	6U	6U	6U	60U	6U	13J	6U	6U	6U	6U	6U	6U	6U	6U	120U	6U	6U	6U	6U	6UJ	30U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	27	27	8	24	13	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	120	84	2J	5U	9	0.7J	6	1J	5	2J	5J	4J	6	3J	10U	3	3	0.5U	0.5U	0.5UJ	3U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U	1U	1U	1U	1UJ	5U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	2J	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
Cyclohexane	ug/L	N	100	2U	2U	18	18	10	24	26J	2U	2U	2U	2U	2U	2U	16	11	9	20U	2U	2U	2U	2U	2U	2U	2U	2U	3J	2U	40U	2U	2U	2U	2U	2UJ	10U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	16	16	5	11	8	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	6	6	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	2J	2J	1U	2J	2J	1U	1U	1U	1U	1U	1U	7	5J	1J	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U	1U	1U	1U	1UJ	5U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U	1U	1U	1U	1UJ	5U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
Methylcyclohexane	ug/L	N	100	1J	2J	11	11	5	19	18	1U	1U	1U	1U	1U	1U	19	9	6	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U	1U	1U	1U	1UJ	5U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	40U	2U	2U	2U	2U	2UJ	3U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	20U	1U	1U	1U	1U	1UJ	5U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
Toluene	ug/L	N	600	0.7U	0.7U	1J	1J	2J	1J	0.7J	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	22	17	1J	7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	10U	0.5U	1	0.5U	0.5U	1J	3U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.8U	0.8U	0.8U	8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	0.5U	1U	1U	1U	1U	0.5U	0.5U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	0.5U	0.5U	0.5U	0.5U	0.5UJ	3U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	7	7	7	15	7	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	32	31	18	8U	1J	0.8U	0.8U	0.8U	1J	0.8U	2J	0.8U	1J	1J	10U	2	3	1	3	3J	3U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-322	MW-322	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-340	MW-340	MW-340	MW-340	MW-340	MW-340	MW-340	MW-340	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376
			Sample Date	12/01/2017	01/19/2018	03/15/2012	05/16/2012	05/17/2012	07/30/2012	07/31/2012	11/20/2012	02/20/2013	06/12/2013	09/05/2013	11/05/2013	03/12/2014	08/05/2014	10/29/2014	03/03/2015	06/08/2015	09/15/2015	09/15/2015	04/29/2013	06/25/2013	07/03/2014	08/05/2014	01/16/2015	07/16/2015	12/11/2015	05/11/2017	01/15/2014	04/17/2014	07/17/2014	07/17/2014	11/19/2014	12/08/2014	04/14/2015	05/15/2015	09/01/2015
			Field Sample ID	M322D1X	M322D2	M323A1X	M323A2	M323A2X	M323A3	M323A3X	M323A4	M323A5	M323A6	M323A7	M323A9	M323B1	M323B3	M323B4	M323B5	M323B6	D0915151	M323B7	M340A1X	M340A2X	M340A3X	M340A4X	M340A5X	M340A6X	M340A7X	M340A8X	M376A1X	M376A2X	D0717141	M376A3X	M376A5X	M376A4X	M376A6X	M376A7X	M376A8X
			SDG	CQ912	CS632	RFU22	RFU65	RFU66	RFV20	RFV21	RFX10	RFX68	RFB02	CS005	CS039	CS073	CS136	CS178	CS205	CS248	CS284	CS284	RFZ20	CP016	CP404	CP466	CP644	CP783	CP962	CQ637	CS054	CS087	CS126	CS126	CS188	CP620	CS219	CS232	CS281
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG
Parameter Name	Report Units	Filtered	CMI GW Action Limit	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
1,1 Dichloroethene	ug/L	N	1	0.5U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	5U	5UJ	0.5U	10U	3UJ	5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	5U	5UJ	0.5U	10U	3UJ	5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	5U	5UJ	0.5U	10U	3UJ	5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	20UJ	2U	40U	10UJ	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	10UJ	1U	20U	5UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	20UJ	2U	40U	10UJ	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	10UJ	1U	20U	5UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	10UJ	1U	20U	5UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	10UJ	1U	20U	5UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	6U	3J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	6J	77	200	200J	19	60U	15UJ	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3UJ	3U	5J	30U	36J	3U	60U	15UJ	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U	36J	3U	60U	15UJ	30U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	11J	12U	12J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	18J	56	770	720J	71	120U	42J	60U	6U	6J	11J	10J	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	730	780	320	210J	640	660	500J	380	24	130	240	220	98	240	220	140	19
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	1U	4J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	2U	3J	1U	1U	1U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	46J	36J	1U	20U	5UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.5U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	5U	5UJ	0.5U	10U	3UJ	5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.5U	1U	15	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	5U	5UJ	0.5U	10U	3UJ	5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	5U	5UJ	0.5U	10U	3UJ	5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	80	70	38J	31UJ	78	40U	46J	34J	14	21U	19J	17J	15	45	13	9	2U
Dibromochloromethane	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5UJ	0.5UJ	10U	3UJ	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	1U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	5U	5UJ	0.5U	10U	3UJ	5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	400	540	200	150J	410	340	310J	180	3J	11	3	3	2	7	5	4	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	36	31	14J	12J	25	20U	16J	16J	2J	5	3J	2J	2J	6	3J	2J	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	10UJ	1U	20U	5UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	5UJ	0.5U	10U	3UJ	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	89	87	82	75J	110	37J	56J	46J	4J	9	3J	3J	4J	16	4J	2J	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	0.5U	1U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	20UJ	2U	40U	10UJ	20U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	10UJ	1U	20U	5UJ	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	5U	5UJ	0.5U	10U	3UJ	5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.6J	1U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	320	340	120	70J	160	85	79J	56	5J	17	18	15	11	29	18	10	1
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	1U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	5U	5UJ	0.5U	10U	3UJ	5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	1U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	5U	5UJ	0.5U	10U	3UJ	5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	2	1J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1400	1400	800	580J	1300	500	550J	140	100	210	99	84	97	270	140	94	9
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7100J	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10000	8800	-	7100J	11000	-	-	-	-	-	-	-	-	1800	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-376	MW-376	MW-376	MW-376	MW-376	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380
			Sample Date	10/14/2015	11/03/2015	11/03/2016	03/21/2017	08/25/2017	01/15/2014	04/17/2014	07/17/2014	09/12/2014	11/19/2014	04/09/2015	05/13/2015	05/15/2015	09/01/2015	10/14/2015	11/03/2015	11/03/2016	03/21/2017	08/25/2017	01/15/2014	04/15/2014	07/11/2014	04/14/2015	06/16/2015	08/27/2015	10/29/2015	11/09/2016	03/22/2017	08/24/2017	01/15/2014	04/15/2014	07/11/2014	04/14/2015	06/10/2015	06/10/2015	08/27/2015
			Field Sample ID	M376A9X	M376B1X	M376B3X	M376B4X	M376B5X	M377A1X	M377A2X	M377A3X	M377A4X	M377A5X	M377A6X	M377A8X	M377A7X	M377A9X	M377B1X	M377B2X	M377B4X	M377B5X	M377B6X	M379A1X	M379A2X	M379A3X	M379A4X	M379A5X	M379A6X	M379A7X	M379A9X	M379B1X	M379B2X	M380A1X	M380A2X	M380A3X	M380A4X	D0610151	M380A5X	M380A6X
			SDG	CP881	CS307	CS479	CS528	CS594	CS054	CS087	CS126	CP506	CS188	CS217	CP711	CS232	CS281	CP881	CS307	CS479	CS528	CS594	CS054	CS086	CS124	CS219	CS252	CS279	CS305	CS482	CS529	CS593	CS054	CS086	CS124	CS219	CS250	CS250	CS279
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2UJ	2U	20U	2U	2U	2U	20U	2U	10U	2U	2U	2U	2U	2U	2UJ	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	20U	2U	2U	2U	20U	2U	10U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5UJ	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	30U	3U	3U	3U	30U	4J	15U	3U	3U	3U	3U	3U	5J	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	9J
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3UJ	3U	3U	3U	30U	3U	3U	3U	30U	3U	15U	3U	3U	3U	3UJ	3U	3U	15U	3U	3U	3U	3U	3U	3UJ	3UJ	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3UJ
4-Methyl-2-pentanone	ug/L	N	100	3U	3UJ	3U	3U	3U	30U	3U	3U	3U	30U	3U	15U	3U	3U	3U	3UJ	3U	3U	15U	3U	3U	3U	3U	3U	3UJ	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	8J	6U	6U	6U	60U	6J	8J	6U	60U	7J	30U	8J	6U	6U	9J	6U	12J	30U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	22
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	220	160	94	250	330	74	150	170	9	67	330	120	190	15	37	93	5	700	510	0.5U	3	0.5U	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	7	5	4	3	2	2	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1UJ	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1UJ	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	10	8	6	54	31	60	75J	100J	7	36J	110	41	62	2U	15	25	2U	86	55	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	61	38	15	10	2U	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	20U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	4	3	2	11	9	17J	26	27	2	11	43	14	20	1	5	9	0.5U	44	16	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	46	35	25	20	13	12	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	3J	2J	2J	8	7	36J	45	44	5	26J	54	20J	30	4J	22	27	1J	44	30	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	40	29	30	15	18	17	4J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	4J	2J	3J	40J	13	40J	66	56	5J	17J	72	20J	35	2J	11	15	1U	33J	17J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	240	200	44	22	37	37	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	20U	2U	2U	2U	20U	2U	10U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	14	10	9	25	36	29J	36	44	5	30	87	31	42	1	14	26	0.6J	120	57	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8J	0.7J	0.7J	0.6J	0.6J	0.6J	0.5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5U	20U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	130	87	87	280	370	64	100	100	6	50	200	52	82	5	37	66	2	250	140	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	6	4	4	4	3	3	1J
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	1100	-	-	-	-	-	-	-	390	-	-	-	-	-	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-380	MW-380	MW-380	MW-380	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-404R	MW-404R	MW-404R	MW-404R	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
			Sample Date	10/29/2015	11/08/2016	03/22/2017	08/30/2017	04/15/2014	07/11/2014	04/09/2015	04/09/2015	06/16/2015	08/27/2015	10/29/2015	11/08/2016	03/22/2017	08/24/2017	04/26/2017	09/05/2017	11/30/2017	03/06/2018	06/29/1995	10/25/2002	02/12/2003	09/02/2003	06/14/2005	11/11/2005	06/13/2006	11/28/2006	06/12/2007	08/12/2008	07/09/2009	06/29/2010	07/26/2011	02/28/2012	04/05/2013	05/30/2014	06/15/2016
			Field Sample ID	M380A7X	M380A9X	M380B1X	M380B2X	M383A1X	M383A2X	D0409151	M383A3X	M383A4X	M383A5X	M383A6X	M383A8X	M383B9X	M383B1X	M404RA4X	M404RA5X	M404RA6X	M404RA7X	MW-0005-A	M005A2Y	M005A3Y	M005A4	M005A7X	M005A8X	M005A9X	M005B1X	M005B2X	M005B3X	M005B4X	M005B5X-100629	M005B6X	M005B7X	M005B8X	M005B9X	M005C1X
			SDG	CS305	CS481	CS529	CS596	CS086	CS124	CS217	CS217	CS252	CS279	CS305	CS481	CS529	CS593	CQ608	CQ755	CQ910	CQ994	PROJB506361	RFE35	RFE64	RFE85	947365	967213	993388	1015744	1042260	1105054	1152857	RFS51	RFT46	RFU13	RFY57	CS107	CS416
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	Report Units	Filtered	CMI GW Action Limit	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	9.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5.0U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	9.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	9.5U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U	3U	6J	3U	3U	100U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3UJ	3U	3U	3U	3U	6U	3U	3U	3U	3UJ	3UJ	3U	3U	3UJ	3U	3U	3U	3U	-	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3UJ	3U	3U	3U	3U	6U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	7J	6U	6U	6U	6U	16J	11J	10J	9J	7J	6U	6U	22	13J	6U	18J	10J	120	-	7J	12J	6J	6U	8J	6U	7J	-	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	4	0.5U	4	1	1300	870	60	51	15	1	0.5U	0.5U	0.5U	0.7J	280	360	50	25	5.0U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.8J	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	0.5U	0.5U	0.5U	5.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	2U	2U	15	2U	4J	4U	3J	3J	2U	2U	2U	2U	2U	2J	46	42	16	18	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	8	0.5U	16	0.9J	10	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	58	64	44	30	5.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	10	1J	18	10	19	2U	5	3J	5J	1J	1J	1U	7	8	5	6	5J	4J	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	19	9	19	19	40	49	48	55	6	1U	2J	1U	4J	180	28	27	9	9	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5.0U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5J	0.5U	0.8J	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	12	8	3	2	5.0U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	4	0.5U	3	1	14	10	3	3	3	0.5U	0.5U	0.5U	0.5U	0.5J	120	57	30	24	5.0U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	MW-5	MW-521	MW-521	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11
			Sample Date	05/03/2017	10/31/2017	02/05/2018	10/22/2002	02/24/2003	07/29/2008	11/11/2008	06/03/2009	11/20/2009	04/29/2010	09/21/2010	06/23/2011	11/22/2011	03/28/2012	08/16/2012	02/27/2013	09/26/2013	03/28/2014	11/12/2014	06/26/2015	03/15/2016	09/01/2016	03/28/2017	09/06/2017	06/15/2005	11/16/2005	06/27/2006	11/28/2006	05/31/2007	08/01/2008	06/24/2009	06/29/2010	06/03/2011	02/14/2012	04/09/2013
			Field Sample ID	M005C2X	M521A1A	M521A2X	P006A1Y	P006A2Y	P006A3X	P006A4X	P006A5X	P006A6X	P006A7X	P006A8X	P006B1X	P006B2X	P006B3X	P006B4X	P006B5X	P006B6X	P006B8X	P006B9X	P006C1X	P006C2X	P006C3X	P006C4X	P006C5X	R011A1X	R011A2X	R011A3X	R011A4X	R011A5X	R011A6X	R011A7X	R011A8X-100629	R011A9X	R011B1X	R011B2X
			SDG	CS553	CQ857	CQ963	RFE34	RFE65	1102860	1119533	1147599	1172227	RFS40	RFS68	RFT36	RFT88	RFU32	RFV29	RFX80	CS016	CS078	CS184	CS255	CS373	CS448	CS532	CS599	947574	967750	995245	1015744	1040574	1103488	1150741	RFS51	RFT27	RFU10	RFY63
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	15U	13	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	15U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	-	30U	34	6U	6U	6U	6U	6U	6U	8J	6U	6U	6U	16J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	14J	11J	8J	6U	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	45	3600J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5J	6	1J	0.5U	0.5U	0.8J	1J	0.9J	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Bromoform	ug/L	N	4	-	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Chlorobenzene	ug/L	N	50	-	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Chloroform	ug/L	N	70	-	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Cyclohexane	ug/L	N	100	-	10U	150	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	3J	3J	4J	4J	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	3U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	-	-	-	-	-	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	8	860	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	5U	49	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	26	140	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	5U	48	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1J	1J	2J	2J	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	3U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-
Styrene	ug/L	N	100	-	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
Toluene	ug/L	N	600	0.5U	3U	910	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	3U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	3U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	-	-	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	3U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	-	-	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.5U	13	3600	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3J	4J	4J	4J	4J	6	4J	3J	2J	3J	0.9J
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	RW-11	RW-11	RW-11	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-33	RW-33	RW-33
			Sample Date	06/03/2014	06/02/2016	05/10/2017	06/07/2005	11/15/2005	06/23/2006	12/08/2006	05/23/2007	08/15/2008	07/16/2009	06/18/2010	07/28/2011	03/28/2012	04/11/2013	12/10/2015	06/02/2016	06/09/2017	06/16/2005	11/18/2005	06/13/2006	12/05/2006	06/15/2007	08/15/2008	06/26/2009	07/01/2010	08/04/2011	02/29/2012	03/19/2013	09/03/2014	12/30/2015	06/01/2016	05/04/2017	06/16/2005	11/18/2005	06/09/2006
			Field Sample ID	R011B3X	R011B4	R011B5X	R021A3X	R021A4X	R021A5X	R021A6X	R021A7X	R021A8X	R021A9X	R021B1X-100618	R021B2X	R021B3X	R021B4X	R021B6X	R021B7	R021B8	R031A1X	R031A2X	R031A3X	R031A4X	R031A5X	R031A6X	R031A7X	R031A8X-100701	R031A9X	R031B1X	R031B2X	R031B3X	R031B4X	R031B5	R031B6	R033A1X	R033A2X	R033A3X
			SDG	CS108	CS409	CS557	RFF58	967531	994921	1017481	1039652	1105739	1153802	RFS47	RFT48	RFU32	RFY73	CS327	CS409	CS570	947746	968194	993388	1016740	1042931	1105739	1151128	RFS51	RFT50	RFU14	RFY13	CS150	CS334	CS408	CS555	947746	968194	993031
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	2U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	2U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	2U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	4U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	4U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
1,2-Dichloropropane	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	5J	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	6U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	6U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	6U	3U
Acetone	ug/L	N	6000	-	-	-	6U	6U	6U	7J	-	-	-	-	-	-	-	-	-	-	9J	6U	6U	6U	-	-	-	-	-	-	-	-	-	-	-	18J	14J	37
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	4J	9	3J	7	5	4J	2J	2J	3J	2J	5J	0.9J	0.9J	1J	0.6J	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.6J	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	1J	1U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
Bromoform	ug/L	N	4	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1J
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
Chlorobenzene	ug/L	N	50	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	2U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
Chloroform	ug/L	N	70	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	2U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	2U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
Cyclohexane	ug/L	N	100	-	-	-	16	68	15	58	-	-	-	-	-	-	-	-	-	-	4J	8	7	10	-	-	-	-	-	-	-	-	-	-	-	28	18	14
Dibromochloromethane	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	4U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	9	13	7	9	11	14	10	6	14	3J	17	2	9	2	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	2U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	-	6	11	6	17	-	-	-	-	-	-	-	-	-	-	2J	9	4J	2J	-	-	-	-	-	-	-	-	-	-	-	9	7J	15
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.5U	1U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	7	26	9	21	-	-	-	-	-	-	-	-	-	-	12	21	28	25	-	-	-	-	-	-	-	-	-	-	-	44	33	36
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	4U	2U
Styrene	ug/L	N	100	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	2U	0.8U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	8	14	10	13	16	33	26	26	46	15	21	5	7	8	1J	0.7U	1J	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7J	0.7U	0.5U	0.5U	0.5U	0.5U	0.7U	1U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	2U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	4U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	2U	1U
Xylene (total)	ug/L	N	1000	2	0.5U	0.5U	140	300	140	330	250	320	280	200	330	120	290	94	130	45	2J	0.8U	3J	3J	2J	3J	2J	2J	0.8J	2J	2J	0.5J	0.5U	0.5U	0.5U	2J	2U	1J
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35
			Sample Date	12/05/2006	06/15/2007	08/22/2008	06/16/2009	06/04/2010	06/30/2011	02/29/2012	03/19/2013	09/03/2014	12/30/2015	06/02/2016	05/04/2017	06/15/2005	11/18/2005	06/13/2006	06/13/2006	06/15/2007	08/13/2008	06/16/2009	06/04/2010	08/18/2011	02/21/2012	03/19/2013	09/03/2014	12/30/2015	06/01/2016	05/04/2017	06/23/2006	12/07/2006	06/15/2007	08/19/2008	07/09/2009	07/01/2010	06/30/2011
			Field Sample ID	R033A4X	R033A5X	R033A6X	R033A7X	R033A8X-100604	R033A9X	R033B1X	R033B2X	R033B3X	R033B4X	R033B5X	R033B6X	R034A1X	R034A2X	R034A3X	R034A3X	R034A5X	R034A6X	R034A7X	R034A8X-100604	R034A9X	R034B1X	R034B2X	R034B3X	R034B4X	R034B5	R034B6	R035A1X	R035A2X	R035A3X	R035A4X	R035A5X	R035A6X-100701	R035A7X
			SDG	1016740	1042931	1106759	1149447	RFS46	RFT38	RFU14	RFY13	CS150	CS334	CS409	CS555	947574	968194	1016155	993388	1042931	1105279	1149447	RFS46	RFT60	RFU12	RFY13	CS150	CS334	CS408	CS555	994921	1017222	1042931	1106131	1152857	RFS51	RFT38
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	4J	7J	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	-	-	-	-	-
Acetone	ug/L	N	6000	21	-	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	6U	-	-	-	-	-	-	-	-	-	-	-	20J	33	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7J	0.5U	0.5U	0.5U	1J	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	210	58	160	79	31	65	6
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
Bromoform	ug/L	N	4	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
Chloroform	ug/L	N	70	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
Cyclohexane	ug/L	N	100	24	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	360	490	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	13	14	14	12	8	9	1J
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	18	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	22	52	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.5J	0.5J	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	59	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	300	340	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-
Styrene	ug/L	N	100	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	18	30	26	14	24	19	3J
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	1J	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	0.5U	0.5U	0.5U	0.6J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	190	260	240	240	260	300	54
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	RW-35	RW-35	RW-35	RW-35	RW-35	RW-41	RW-41	RW-41	RW-41	RW-41	RW-41	RW-41	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42
			Sample Date	02/21/2012	06/27/2013	09/03/2014	06/16/2016	05/16/2017	08/16/2013	09/11/2014	12/10/2015	12/30/2015	06/01/2016	07/21/2016	05/04/2017	11/04/2002	09/29/2004	06/01/2005	11/16/2005	06/15/2006	12/07/2006	06/12/2007	08/19/2008	06/17/2009	06/15/2010	05/19/2011	02/28/2012	03/21/2013	08/12/2013	09/04/2014	12/04/2015	12/04/2015	06/10/2016	07/29/2016	05/11/2017
			Field Sample ID	R035A8X	R035A9X	R035B1X	R035B2	R035B3	R041A1	R041A2X	R041A3X	R041A4X	R041A5	R041A6X	R041A7	RW42A1	RW42A2X	R042A3	R042A4X	R042A5X	R042A6X	R042A7X	R042A8X	R042A9X	R042B1X-100615	R042B2X	R042B3X	R042B4X	R042B5	R042B6X	D1204158	R042B7X	R042B8X	R042B9X	R042C2X
			SDG	RFU12	RFB21	CS150	CS418	CS560	CP076	CS154	CP959	CS334	CS408	CQ191	CS555	LNA05	RFF26	RFF57	967750	993798	1017222	1042260	1106131	1149895	RFS47	RFT23	RFU13	RFY20	CP068	CS151	CP946	CP946	CS414	CQ207	CS558
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	2U	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	2U	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	3U	3U	3U	3U	3U	3U	4J	3U	3U	3U	4J	8J	3U	-	-	-	-	-	-	-	-	-	3U	3U	-	3U	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	-	3UJ	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3J	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	3U	3U	-	3UJ	-
Acetone	ug/L	N	6000	-	-	-	-	-	6U	6U	9J	6U	6U	6U	15J	15J	14J	6U	9J	10J	6U	-	-	-	-	-	-	-	-	-	6U	6U	-	6U	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	13	45	49	24	7	0.5U	2	0.5U	0.5U	0.9J	0.7J	0.5U	2J	0.5U	90	200	220	92	3J	17	32	3J	0.5J	8	230	38J-	5	0.5U	0.5U	1	0.5U	83
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Bromoform	ug/L	N	4	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	37000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2J	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Chloroform	ug/L	N	70	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	3J	2U	4J	3J	6	4J	5J	8	2U	16	12	11	17	-	-	-	-	-	-	-	18J-	-	2J	2J	-	2U	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	3J	3J	5	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	7	3J	4J	5J	0.8J	4J	2J	0.8U	0.8U	0.8U	2J	3J-	2	0.5U	0.5U	0.5U	0.5U	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	6	8	7	3J	5	6	3J	1U	1U	3J	1J	1J	1J	-	-	-	-	-	-	-	1J-	-	1U	1U	-	1U	-
Methane	ug/L	N	NS	-	-	-	-	-	12000	-	-	-	-	-	-	7200	-	-	-	-	-	-	-	-	-	-	-	-	7800J-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	29	200	64	60	120	67	93	5J	1U	5J	8	6	9	-	-	-	-	-	-	-	10J-	-	1U	1U	-	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	2U	2U	-	2U	-
Styrene	ug/L	N	100	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	1U	1U	-	1U	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Toluene	ug/L	N	600	11	2J	10	2	2	0.7U	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.9J	0.7U	72	39	29	61	5J	51	22	5	6	15	23	31J-	34	1	2	2	0.5U	2
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Xylene (total)	ug/L	N	1000	64	12	160	15	6	2J	4	4	3	3	3	2	5	0.8U	250	100	100	170	19	160	80	30	16	49	36	72J-	77	12	15	11	0.5U	4
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	900	-	-	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	98	120	-	20U	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	710	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	480J-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-323	MW-323	MW-323	MW-323	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325
			Sample Date	09/05/2017	10/13/2017	12/01/2017	01/19/2018	03/13/2012	05/17/2012	05/18/2012	07/30/2012	07/31/2012	11/21/2012	02/21/2013	06/17/2013	09/09/2013	11/05/2013	03/11/2014	05/21/2014	08/07/2014	10/28/2014	03/10/2015	03/10/2015	05/28/2015	09/17/2015	10/11/2017	01/24/2018	03/13/2012	03/13/2012	05/17/2012	05/18/2012	07/26/2012	07/27/2012	11/21/2012	02/21/2013	06/14/2013
			Field Sample ID	M323C8X	M323C9	M323D1X	M323D3	M324A1X	M324A2	M324A2X	M324A3	M324A3X	M324A4	M324A5	M324A6	M324A7	M324A8	M324A9	M324B1	M324B2	M324B3	D0310151	M324B4	M324B5	M324B6	M324C7	M324C8	D0313121	M325A1X	M325A2	M325A2X	M325A3	M325A3X	M325A4	M325A5	M325A6
			SDG	CQ755	CS617	CQ912	CS632	RFU17	RFU66	RFU67	RFV20	RFV21	RFX12	RFX72	RFB08	CS006	CS039	CS072	CS102	CS138	CS177	CS207	CS207	CS243	CS286	CS615	CS636	RFU17	RFU17	RFU66	RFU67	RFV17	RFV18	RFX12	RFX72	RFB05
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	Report Units	Filtered	CMI GW Action Limit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	2J	4J	3J	2J	2J	1J	2J	1J	2J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4J	4J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-327	MW-327	MW-327
			Sample Date	09/09/2013	11/05/2013	11/05/2013	03/11/2014	05/21/2014	08/07/2014	10/28/2014	03/10/2015	05/28/2015	09/17/2015	10/11/2017	01/24/2018	03/13/2012	05/23/2012	05/24/2012	07/26/2012	07/27/2012	11/20/2012	02/20/2013	06/13/2013	09/05/2013	11/06/2013	03/10/2014	08/05/2014	03/23/2015	05/29/2015	05/29/2015	09/18/2015	10/10/2017	01/23/2018	03/14/2012	05/18/2012	05/18/2012
			Field Sample ID	M325A7	D1105131	M325A8	M325A9	M325B1	M325B2	M325B3	M325B4	M325B5	M325B6	M325C6	M325C7	M326A1X	M326A2	M326A2X	M326A3	M326A3X	M326A4	M326A5	M326A6	M326A7	M326A9	M326B1	M326B3	M326B5	D0529151	M326B6	M326B7	M326C8	M326C9	M327A1X	M327A2	M327A2X
			SDG	CS006	CS039	CS039	CS072	CS102	CS138	CS177	CS207	CS243	CS286	CS615	CS636	RFU17	RFU72	RFU73	RFV17	RFV18	RFX10	RFX68	RFB04	CS005	CS040	CS071	CS136	CS211	CS244	CS244	CS287	CS614	CS635	RFU20	RFU67	RFU67
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	8	6	5J	5	4J	3J	2J	1U	1U	1U	1U	0.5U	2	0.8J	0.8J	0.5U	0.5U	0.5U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	7J	6U	6U	6U	6U	6U	6U	6U	6U	15J	6U	16J	6U	6U	10J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	91J	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3J	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-327	MW-327	MW-327	MW-327	MW-327	MW-327	MW-327	MW-327	MW-327	MW-327	MW-327	MW-327	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328
			Sample Date	07/31/2012	08/01/2012	09/06/2013	11/11/2013	03/11/2014	08/07/2014	10/23/2014	03/23/2015	06/01/2015	09/15/2015	10/12/2017	01/22/2018	03/21/2012	05/23/2012	05/24/2012	07/25/2012	07/26/2012	04/25/2013	06/17/2013	06/25/2013	09/10/2013	11/12/2013	03/14/2014	07/02/2014	08/01/2014	08/08/2014	10/29/2014	01/16/2015	03/02/2015	06/01/2015	09/16/2015	10/12/2017	01/25/2018
			Field Sample ID	M327A3	M327A3X	M327A5	M327A9	M327B1	M327B3	M327B4	M327B5	M327B6	M327B7	M327C8	M327C9	M328A1X	M328A2	M328A2X	M328A3	M328A3X	M328A4X	M328A5	M328A5X	M328A6	M328A7	M328A8	M328B1X	M328B2X	M328B3	M328B4	M328B5X	M328B6	M328B7	M328B8	M328D1	M328D2
			SDG	RFV21	RFV23	CS005	CS043	CS072	CS138	CS176	CS211	CS245	CS284	CS616	CS634	RFU27	RFU72	RFU73	RFV16	RFV17	RFZ12	RFB08	CP016	CS007	CS042	CS073	CP401	CP441	CS139	CS178	CP644	CS204	CS245	CS285	CS616	CS637
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	20U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	10U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	20U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	10U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	10U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	10U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	9J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	30U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	30U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	30U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6UJ	6U	6U	6U	6U	6U	6U	6U	60U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	10U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	5U
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	14	1J	2J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	20U
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5J
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	10U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	10U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	4J	1U	1U	2J	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	10U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	0.5U	5U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	10U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20U	-	31J	-	-	-	-	20UJ	-	-	20U	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-333	MW-333	MW-333	MW-333	MW-333	MW-333	MW-333	MW-333	MW-333	MW-333	MW-334	MW-334	MW-334	MW-334	MW-334	MW-334	MW-334	MW-334	MW-334	MW-334	MW-334R	MW-334R	MW-334R	MW-336	MW-336	MW-336	MW-336	MW-336	MW-336	MW-336	MW-336	MW-337	MW-337
			Sample Date	05/16/2012	05/17/2012	07/24/2012	07/25/2012	03/10/2014	05/22/2014	08/06/2014	10/30/2014	03/09/2015	06/03/2015	05/17/2012	05/18/2012	07/31/2012	08/01/2012	03/10/2014	05/22/2014	08/06/2014	10/30/2014	03/09/2015	05/29/2015	10/10/2017	01/25/2018	01/25/2018	04/17/2013	06/19/2013	03/14/2014	06/27/2014	07/29/2014	01/20/2015	07/07/2015	11/27/2017	04/16/2013	06/24/2013
			Field Sample ID	M333A1	M333A1X	M333A2	M333A2X	M333A3	M333A4	M333A5	M333A6	M333A7	M333A8	M334A1	M334A1X	M334A2	M334A2X	M334A3	M334A4	M334A5	M334A6	M334B7	M334A8	M334RB8	D0125181	M334RB9	M336A1X	M336A2X	M336A3X	M336A4X	M336A5X	M336A6X	M336A7X	M336B3X	M337A1X	M337A2X
			SDG	RFU65	RFU66	RFV15	RFV16	CS071	CS103	CS137	CS179	CS206	CS247	RFU66	RFU67	RFV21	RFV23	CS071	CS103	CS137	CS179	CS206	CS244	CS614	CS637	CS637	RFY90	CP008	CP278	CP391	CP431	CP648	CP770	CQ904	RFY83	CP014
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	0.8U	2U	10U	5U	5U	5UJ	0.5U	3U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	0.8U	2U	16U	5U	5U	5UJ	0.5U	3U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	1U	2U	10U	5U	5U	5UJ	0.5U	3U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	0.8U	2U	10U	5U	5U	5UJ	0.5U	3U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20UJ	20UJ	2U	4U	40U	20U	20U	20UJ	2U	10U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	1U	2U	20U	5U	5U	5UJ	0.5U	3U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10UJ	10UJ	1U	2U	20U	10U	10U	10UJ	1U	5U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20UJ	20UJ	2U	4U	40U	20U	20U	20UJ	2U	10U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	1U	2U	20U	5U	5U	5UJ	0.5U	3U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10UJ	10UJ	1U	2U	20U	10U	10U	10UJ	1U	5U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	1U	2U	10U	5U	5U	5UJ	0.5U	3U	1U	1U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	1U	2U	10U	5U	5U	5UJ	0.5U	3U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10UJ	10UJ	1U	2U	20U	10U	10U	10UJ	1U	5U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10UJ	10UJ	1U	2U	20U	10U	10U	10UJ	1U	5U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30UJ	30UJ	3U	51	310	39J	36J	39J	46	15U	9J	20
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30UJ	30UJ	3U	6U	60U	30U	30U	30UJ	3U	15U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30UJ	30UJ	3U	7J	60U	30U	30U	30UJ	3U	15U	3U	3U
Acetone	ug/L	N	6000	22	21	10J	6U	6U	9J	6U	7J	6U	6U	6U	7J	6U	6U	6U	6U	6U	6U	6U	6U	6U	60UJ	60UJ	44	100	1100	160J	160J	200J	120	30U	11J	36
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.9J	0.5U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	69	57	14	27	18	56	5	5	29	4	0.8J	5UJ	5UJ	240	110	62	120	170	130J	140	18	170	260
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	1U	2U	10U	5U	5U	5UJ	0.5U	3U	1U	1U
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	1U	2U	10U	5U	5U	5UJ	0.5U	3U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	1UJ	2UJ	20U	5U	5U	5UJ	0.5U	3U	1UJ	1UJ
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10UJ	10UJ	1U	2U	20U	10U	10U	10UJ	1J	5U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	1U	2U	10U	5U	5U	5UJ	0.5U	3U	1U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	0.8U	2U	16U	5U	5U	5UJ	0.5U	3U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	1U	3J	20U	5U	5U	5UJ	0.5U	3U	1U	1UJ
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	0.8U	2U	16U	5U	5U	5UJ	0.5U	3U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	5UJ	5UJ	1U	2U	77J	5U	5U	5UJ	0.5U	3U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	0.8U	2U	16U	5U	5U	5UJ	0.5U	3U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	1U	2U	10U	5U	5U	5UJ	0.5U	3U	1U	1U
Cyclohexane	ug/L	N	100	6	4J	2U	2U	2U	2U	2U	2U	2U	2U	6	4J	2U	3J	2U	2U	2U	2U	2J	2U	2U	20UJ	20UJ	320	310	130	150	200	120J	250	26	130	120
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	1U	2U	10U	5U	5U	5UJ	0.5U	3U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	2U	4U	40U	5U	5U	5UJ	0.5U	3U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	4J	2J	0.8U	2J	0.8U	1	0.5U	0.5U	0.6J	0.5U	0.5U	5UJ	5UJ	87	110	43J	79	110	89J	120	12	120	130
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	2J	2J	1U	1J	1U	1U	1U	1U	1U	1U	2J	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	10UJ	10UJ	100	66	25J	42J	56	47J	66	13J	35	36
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10UJ	10UJ	1U	2U	20U	10U	10U	10UJ	1U	5U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	0.5U	1U	10U	5U	5U	5UJ	0.5U	3U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	4J	3J	1U	2J	1U	1U	1U	1U	1U	1U	4J	2J	1U	2J	1J	1U	1U	1U	1J	1U	1U	10UJ	10UJ	350	310	100	130	210	82J	230	34	260	210
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	5UJ	5UJ	2U	4U	40U	20U	20U	20UJ	2U	3U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10UJ	10UJ	1U	2U	20U	10U	10U	10UJ	1U	5U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	0.8U	2U	10U	5U	5U	5UJ	0.5U	3U	0.8U	0.8U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	9	6	2J	3J	3J	17	2	0.9J	6	0.8J	0.5U	5UJ	5UJ	28	21	14U	13	15	7J	14	3U	10	16
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	0.8U	2U	16U	5U	5U	5UJ	0.5U	3U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	1U	2U	10U	5U	5U	5UJ	0.5U	3U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	1U	2U	10U	5U	5U	5UJ	0.5U	3U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	2U	4U	40U	5U	5U	5UJ	0.5U	3U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	5UJ	1U	2U	10U	5U	5U	5UJ	0.5U	3U	1U	1U
Xylene (total)	ug/L	N	1000	1J	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	10	10	2J	5	2J	6	1	1	4	2	1	5UJ	5UJ	53	32	17J	22	32	9J	25	3U	52	40
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1500	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7300	7000	6800	-	3900	2700	-	-	5700	4200

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-337	MW-337	MW-337	MW-337	MW-337	MW-337	MW-338	MW-338	MW-338	MW-338	MW-338	MW-338	MW-338	MW-338	MW-338	MW-338	MW-338	MW-339	MW-339	MW-339	MW-339	MW-339	MW-339	MW-339	MW-340	MW-340	MW-340	MW-340	MW-340	MW-340	MW-340	MW-340	MW-350
			Sample Date	03/13/2014	07/01/2014	07/30/2014	03/11/2015	07/06/2015	11/28/2017	05/06/2013	06/20/2013	06/20/2013	06/20/2013	06/20/2013	03/11/2014	06/30/2014	07/31/2014	01/15/2015	07/07/2015	11/28/2017	04/29/2013	06/20/2013	06/20/2013	07/03/2014	08/01/2014	01/16/2015	07/15/2015	04/29/2013	06/25/2013	07/03/2014	08/05/2014	01/16/2015	07/16/2015	12/11/2015	05/11/2017	04/17/2013
			Field Sample ID	M337A3X	M337A4X	M337A5X	M337A6X	M337A7X	M337B3X	M338A1X	D0620138	D0620138	M338A2X	M338A2X	M338A3X	M338A4X	M338A5X	M338A6X	M338A7X	M338B3X	M339A1X	M339A2X	M339A2X	M339A3X	M339A4X	M339A5X	M339A6X	M340A1X	M340A2X	M340A3X	M340A4X	M340A5X	M340A6X	M340A7X	M340A8X	M350A1X
			SDG	CP277	CP396	CP432	CP666	CP768	CQ906	RFZ29	CP009	CP010	CP009	CP010	CP269	CP392	CP438	CP638	CP770	CQ906	RFZ20	CP009	CP010	CP404	CP441	CP644	CP780	RFZ20	CP016	CP404	CP466	CP644	CP783	CP962	CQ637	RFY90
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	FD	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	-	8U	5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	1U	5UJ	5U	25U	0.8U	0.8U	5U	5UJ	0.5U	10U	3UJ	5U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	-	8U	5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	1U	5UJ	5U	25U	0.8U	0.8U	5U	5UJ	0.5U	10U	3UJ	5U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	1U	-	1U	-	10U	5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	5UJ	5U	25U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	-	8U	5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	1U	5UJ	5U	25U	0.8U	0.8U	5U	5UJ	0.5U	10U	3UJ	5U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2UJ	2U	2U	2U	2U	2U	-	2U	-	20U	20U	2U	2U	2U	2U	2U	2U	-	4U	20UJ	20U	100U	2U	2U	20U	20UJ	2U	40U	10UJ	20U	2U
1,1-Dichloroethane	ug/L	N	50	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	1U	-	1U	-	10U	5U	0.5U	0.5U	0.5U	0.5U	3J	1U	-	1U	5UJ	5U	25U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	10U	10U	1U	1U	1U	1U	1U	1U	-	2U	10UJ	10U	50U	1U	1U	10U	10UJ	1U	20U	5UJ	10U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2UJ	2U	2U	2U	2U	2U	-	2U	-	20U	20U	2U	2U	2U	2U	2U	2U	-	4U	20UJ	20U	100U	2U	2U	20U	20UJ	2U	40U	10UJ	20U	2U
1,2-Dibromoethane	ug/L	N	0	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	1U	-	1U	-	10U	5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	5UJ	5U	25U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	10U	10U	1U	1U	1U	1U	1U	1U	-	2U	10UJ	10U	50U	1U	1U	10U	10UJ	1U	20U	5UJ	10U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	1U	-	1U	-	10U	5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	5UJ	5U	25U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U
1,2-Dichloropropane	ug/L	N	1	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	1U	-	1U	-	10U	5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	5UJ	5U	25U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	10U	10U	1U	1U	1U	1U	1U	1U	-	2U	10UJ	10U	50U	1U	1U	10U	10UJ	1U	20U	5UJ	10U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	10U	10U	1U	1U	1U	1U	1U	1U	-	2U	10UJ	10U	50U	1U	1U	10U	10UJ	1U	20U	5UJ	10U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	24	6J	10J	3U	6J	3U	6J	9J	-	11	-	33J	30J	92	9J	7J	3J	14	26	-	20J	30UJ	31J	150U	6J	77	200	200J	19	60U	15UJ	30U	21
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	11	3U	3UJ	3U	3U	3UJ	3U	3U	-	3U	-	30U	30U	13	3U	3U	3UJ	3U	3U	-	6U	30UJ	30U	150U	3U	5J	30U	36J	3U	60U	15UJ	30U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3UJ	3U	3U	3U	3U	3U	-	3U	-	30U	30U	3J	3U	3U	3U	3U	3U	-	6U	30UJ	30U	150U	3U	3U	30U	36J	3U	60U	15UJ	30U	3U
Acetone	ug/L	N	6000	56	20	28J	6U	6U	47	17J	17J	-	25	-	97J	60U	560	30	27	13J	37	57	-	36J	60UJ	60U	300U	18J	56	770	720J	71	120U	42J	60U	23
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	300	74	36J	260	110	9	550	520	-	590	-	190	110	83	27	170	12	350	350	-	350	320J	270	260	730	780	320	210J	640	660	500J	380	100
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	1U	-	1U	-	10U	5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	5UJ	5U	25U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U
Bromoform	ug/L	N	4	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	1U	-	1U	-	10U	5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	5UJ	5U	25U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	1UJ	-	1UJ	-	10U	5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	-	1U	5UJ	5U	25U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1UJ
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	10U	10U	73	6	1U	1U	1U	1U	-	2U	10UJ	10U	50U	1U	1U	46J	36J	1U	20U	5UJ	10U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	1U	-	1U	-	10U	5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	5UJ	5U	25U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U
Chlorobenzene	ug/L	N	50	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	-	8U	5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	1U	5UJ	5U	25U	0.8U	0.8U	5U	5UJ	0.5U	10U	3UJ	5U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	1UJ	-	1UJ	-	10U	5U	0.5U	0.5U	0.5U	0.5U	1U	1UJ	-	1U	5UJ	5U	25U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U
Chloroform	ug/L	N	70	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	-	8U	5U	2	0.5U	0.5U	0.5U	0.8U	0.8U	-	1U	5UJ	5U	25U	0.8U	0.8U	5U	5UJ	0.5U	10U	3UJ	5U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	1U	-	1U	-	10U	5U	2	0.5U	0.5U	0.5U	1U	1U	-	1U	5UJ	5U	25U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	-	8U	5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	1U	5UJ	5U	25U	0.8U	0.8U	5U	5UJ	0.5U	10U	3UJ	5U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	1U	-	1U	-	10U	5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	5UJ	5U	25U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U
Cyclohexane	ug/L	N	100	97	13	11J	42	29	2J	68	42J	-	75J	-	48J	31J	10	42	37	2J	160	130	-	79	110J	87	980	80	70	38J	31UJ	78	40U	46J	34J	110
Dibromochloromethane	ug/L	N	1	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	1U	-	1U	-	10U	5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	5UJ	5UJ	25U	1U	1U	5U	5UJ	0.5UJ	10U	3UJ	5U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	0.5U	0.5UJ	0.5U	0.5U	0.5U	2U	2U	-	2U	-	20U	5U	0.5U	0.5U	0.5U	0.5U	2U	2U	-	1U	5UJ	5U	25U	2U	2U	5U	5UJ	0.5U	10U	3UJ	5U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	89	21	13J	71	28	2	56	37J	-	65J	-	8U	5U	4	4	7	2	120	70	-	34	26J	86	200	400	540	200	150J	410	340	310J	180	41
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	11	2J	3J	20	4J	3J	29	22	-	33	-	10U	10U	3J	3J	5	6	64	34	-	13	10J	43J	240J	36	31	14J	12J	25	20U	16J	16J	43
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	10U	10U	1U	1U	1U	1U	1U	1U	-	2U	10UJ	10U	50U	1U	1U	10U	10UJ	1U	20U	5UJ	10U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	1U	5UJ	5U	25U	0.5U	0.5U	5U	5UJ	0.5U	10U	3UJ	5U	0.5U
Methylcyclohexane	ug/L	N	100	130	20	21J	49	55	6	83	47	-	74	-	64	46J	24	73	57	4J	210	150	-	120	110J	130	1800	89	87	82	75J	110	37J	56J	46J	270
Methylene chloride (Dichloromethane)	ug/L	N	3	8	2U	2UJ	2U	2U	0.5U	2U	2U	-	2U	-	20U	20U	2U	2U	2U	0.5U	2U	2U	-	4U	20UJ	20U	100U	2U	2U	20U	20UJ	2U	40U	10UJ	20U	2U
Styrene	ug/L	N	100	1U	1U	1UJ	1U	1U	1U	1U	1U	-	1U	-	10U	10U	1U	1U	1U	1U	1U	1U	-	2U	10UJ	10U	50U	1U	1U	10U	10UJ	1U	20U	5UJ	10U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	-	8U	5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	1U	5UJ	5U	25U	0.8U	0.8U	5U	5UJ	0.5U	10U	3UJ	5U	0.8U
Toluene	ug/L	N	600	10	3	2J	9	2	0.6J	34	19J	-	43J	-	7U	5U	3	1	4	1	80	63	-	41	35J	45	74	320	340	120	70J	160	85	79J	56	24
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	-	8U	5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	1U	5UJ	5U	25U	0.8U	0.8U	5U	5UJ	0.5U	10U	3UJ	5U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	1U	-	1U	-	10U	5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	5UJ	5U	25U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	1U	-	1U	-	10U	5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	5UJ	5U	25U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	0.5U	0.5UJ	0.5U	0.5U	0.5U	2U	2U	-	2U	-	20U	5U	0.5U	0.5U	0.5U	0.5U	2U	2U	-	1U	5UJ	5U	25U	2U	2U	5U	5UJ	0.5U	10U	3UJ	5U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	1U	-	1U	-	10U	5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	5UJ	5U	25U	1U	1U	5U	5UJ	0.5U	10U	3UJ	5U	1U
Xylene (total)	ug/L	N	1000	27	6	6J	19	10	1	87	70	-	93	-	15J	6J	7	7	6	2	260	180	-	86	68J	180	390	1400	1400	800	580J	1300	500	550J	140	47
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	550	-	-	-	-	-	-	-	-	-	-	850	-	-	-	-	-	-	-	-	-	-	-	-	-	7100J	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	2900	-	930J	2300	-	-	3100	-	2400J	-	4300J	2800	-	1400J	1500J+	-	-	9200	-	5400	-	4400J	48000	-	10000	8800	-	7100J	11000	-	-	-	8500

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-350	MW-350	MW-350	MW-350	MW-350	MW-350	MW-350	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351	MW-352	MW-352	MW-352	MW-352	MW-352	MW-353	MW-353	MW-353	MW-353	MW-353	MW-353	MW-353
			Sample Date	06/24/2013	03/11/2014	06/27/2014	07/30/2014	01/15/2015	07/07/2015	11/28/2017	04/30/2013	04/30/2013	06/25/2013	03/11/2014	06/30/2014	06/30/2014	08/04/2014	08/04/2014	01/15/2015	01/15/2015	07/07/2015	07/07/2015	11/29/2017	11/29/2017	11/08/2013	03/17/2014	06/05/2014	10/16/2017	12/08/2017	06/05/2013	09/12/2013	11/15/2013	01/16/2014	04/08/2014	07/03/2014	11/20/2014
			Field Sample ID	M350A2X	M350A3X	M350A4X	M350A5X	M350A6X	M350A7X	M350B3X	D0430138	M351A1X	M351A2X	M351A3X	D0630148	M351A4X	D0804148	M351A5X	D0115158A	M351A6X	D0707158	M351A7X	D1129178	M351B3X	M352A1X	M352A2X	M352A3X	M352A4X	M352A5X	M353A1X	M353A2X	M353A3X	M353A4X	M353A5X	M353A6X	M353A7X
			SDG	CP014	CP269	CP391	CP432	CP638	CP770	CQ906	RFZ24	RFZ24	CP016	CP269	CP392	CP392	CP442	CP442	CP638	CP638	CP770	CP770	CQ908	CQ908	CP214	CP279	CP352	CQ816	CQ922	RFZ79	CS008	CS045	CS055	CS082	CS122	CS189
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	FD	REG	FD	REG	FD	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	2U	0.8U	0.5U	10UJ	0.5U	0.5U	0.5U	0.8U	0.8U	2U	8U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	2U	0.8U	0.5U	10UJ	0.5U	0.5U	0.5U	0.8U	0.8U	2U	8U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	2U	1U	0.5U	10UJ	0.5U	0.5U	0.5U	1U	1U	2U	10U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	2U	0.8U	0.5U	10UJ	0.5U	0.5U	0.5U	0.8U	0.8U	2U	8U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	4U	2U	2U	40UJ	2U	2U	2U	2UJ	2UJ	4U	20U	20U	20U	20UJ	20UJ	2U	2U	2U	2U	4UJ	4UJ	4U	4U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	2U	1U	0.5U	10UJ	0.5U	0.5U	0.5U	1U	1U	2U	10U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	2U	1U	1U	20UJ	1U	1U	1U	1U	1U	2U	10U	10U	10U	10UJ	10UJ	1U	1U	1U	1U	2UJ	2UJ	2U	2U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	4U	2U	2U	40UJ	2U	2U	2U	2U	2U	4U	20U	20U	20U	20UJ	20UJ	2U	2U	2U	2U	4UJ	4UJ	4U	4U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	2U	1U	0.5U	10UJ	0.5U	0.5U	0.5U	1U	1U	2U	10U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	2U	1U	1U	20UJ	1U	1U	1U	1U	1U	2U	10U	10U	10U	10UJ	10UJ	1U	1U	1U	1U	2UJ	2UJ	2U	2U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	2U	1U	0.5U	10UJ	0.5U	0.5U	0.5U	1U	1U	2U	10U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	2U	1U	0.5U	10UJ	0.5U	0.5U	0.5U	1U	1U	2U	10U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	2U	1U	1U	20UJ	1U	1U	1U	1U	1U	2U	10U	10U	10U	10UJ	10UJ	1U	1U	1U	1U	2UJ	2UJ	2U	2U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	2U	1U	1U	20UJ	1U	1U	1U	1U	1U	2U	10U	10U	10U	10UJ	10UJ	1U	1U	1U	1U	2UJ	2UJ	2U	2U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	39	13	17	60UJ	14	3U	3U	12	12	6J	43J	30U	46J	96J	36J	5J	5J	7J	7J	6UJ	6UJ	6U	17J	32J	17	29	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	6U	7J	13	60UJ	3U	3U	3UJ	3U	3U	6U	30U	30U	30U	35J	30UJ	3U	3U	3U	3U	6UJ	6UJ	6U	6U	3UJ	3U	12	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	16J	11	45	60UJ	3U	3U	3U	3U	3U	6U	30U	30U	30U	30UJ	36J	3U	3U	3U	3U	6UJ	6UJ	6U	6U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	54	23	37	120UJ	47	18J	12J	19J	19J	12U	150J	63J	200J	380J	82J	13J	6U	6U	12J	12UJ	12UJ	26J	73	61J	35	61	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	120	76	56	240J	170	93	180	230	240	420	610	380	300	120J	580J	270J	360J	140	150	380J	340J	410	410	390J	150	250	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	2U	1U	0.5U	10UJ	0.5U	0.5U	0.5U	1U	1U	2U	10U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	2U	1U	0.5U	10UJ	0.5U	0.5U	0.5U	1U	1U	2U	10U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ
Bromomethane (Methyl bromide)	ug/L	N	10	2UJ	1U	0.5U	10UJ	0.5U	0.5U	0.5U	1U	1U	2U	10U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	2U	2J	1U	20UJ	1U	1U	1U	1U	1U	2U	10U	10U	11J	10J	10UJ	1U	1U	1U	1U	2UJ	2UJ	2U	2U	1UJ	1J	1U	1U	1U	1U	1U	1U	1UJ	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	2U	1U	0.5U	10UJ	0.5U	0.5U	0.5U	1U	1U	2U	10U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5UJ	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	2U	0.8U	0.5U	10UJ	0.5U	0.5U	0.5U	0.8U	0.8U	2U	8U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	2J	1U	0.5U	10UJ	1	0.5U	0.5U	1U	1U	2U	10U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	2U	0.8U	0.5U	10UJ	0.5U	0.5U	0.5U	0.8U	0.8U	2U	8U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	2U	1U	0.5U	10UJ	0.5U	0.5U	0.5U	1U	1U	2U	10U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	2U	0.8U	0.5U	10UJ	0.5U	0.5U	0.5U	0.8U	0.8U	2U	8U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	2U	1U	0.5U	10UJ	0.5U	0.5U	0.5U	1U	1U	2U	10U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	92	150	59	40UJ	110	33	42	78	99	110	77	40J	21J	20UJ	73J	41J	60J	52J	35J	7J	7J	220	320	270J	220	280	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	2U	1U	0.5U	10UJ	0.5U	0.5U	0.5U	1U	1U	2U	10U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	4U	2U	0.5U	10UJ	0.5U	0.5U	0.5U	2U	2U	4U	20U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	4U	4U	0.5UJ	0.5U	0.5U	2U	2U	2U	2U	0.5U	0.5U	0.5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	43	20	14	28J	36	26	34	41	41	48	51	22	21	15J	51J	22J	30J	13	13	17J	12J	210	140	160J	41	49	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	42	18	12	20UJ	27	22	37	40	40	36	25J	10U	10U	10UJ	19J	12J	16J	7	7	11J	10J	90	70	69J	92	91	3J	4J	2J	1U	2J	3J	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	2U	1U	1U	20UJ	1U	1U	1U	1U	1U	2U	10U	10U	10U	10UJ	10UJ	1U	1U	1U	1U	2UJ	2UJ	2U	2U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	1U	0.5U	0.5U	10UJ	0.5U	0.5U	0.5U	0.5U	0.5U	1U	5U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	1U	1U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	190	210	150	90J	140	59	60	140	140	140	83	48J	26J	13J	68J	48J	69J	64	62	5J	4J	200	210	230J	190	250	18	7	1U	7	9	7	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	4U	2U	2U	40UJ	2U	2U	0.5U	2U	2U	4U	20U	20U	20U	20UJ	20UJ	2U	2U	2U	2U	1UJ	1UJ	4U	4U	2UJ	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	2U	1U	1U	20UJ	1U	1U	1U	1U	1U	2U	10U	10U	10U	10UJ	10UJ	1U	1U	1U	1U	2UJ	2UJ	2U	2U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	2U	0.8U	0.5U	10UJ	0.5U	0.5U	0.5U	0.8U	0.8U	2U	8U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	19	13	8	15J	18	10	10	24	25	42	42J	10	11	9J	28J	14J	20J	7	7	10J	11J	70	65	65J	51	57	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	2U	0.8U	0.5U	10UJ	0.5U	0.5U	0.5U	0.8U	0.8U	2U	8U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	2U	1U	0.5U	10UJ	0.5U	0.5U	0.5U	1U	1U	2U	10U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	2U	1U	0.5U	10UJ	0.5U	0.5U	0.5U	1U	1U	2U	10U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	4U	2U	0.5U	10UJ	0.5U	0.5U	0.5U	2U	2U	4U	20U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	4U	4U	0.5UJ	0.5U	0.5U	2U	2U	2U	2U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	2U	1U	0.5U	10UJ	0.5U	0.5U	0.5U	1U	1U	2U	10U	5U	5U	5UJ	5UJ	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	2U	2U	0.5UJ	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	37	18	11	18J	28	17	39	86	87	96	47J	19J	13J	12J	37J	17J	24J	16	16	13J	11J	82	77	73J	55	65	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	4600	-	-	-	-	-	-	-	-	-	-	-	-	3200	3900	-	-	-	6600J+	6800J+	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	7300J+	4700	-	4800J+	5300J+	-	-	5100	5600	5700J	5700	-	-	1700J	1900J	3200	3300	-	-	-	-	7800	8400	5600	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-353	MW-353	MW-353	MW-353	MW-353	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-356	MW-356	MW-356	MW-356
			Sample Date	02/11/2015	02/11/2015	08/11/2015	10/16/2015	09/15/2017	06/05/2013	09/12/2013	11/15/2013	01/16/2014	04/08/2014	07/03/2014	11/20/2014	02/11/2015	08/11/2015	10/16/2015	09/15/2017	09/15/2017	06/05/2013	09/12/2013	11/15/2013	11/15/2013	01/16/2014	04/10/2014	07/03/2014	11/20/2014	02/11/2015	08/13/2015	10/16/2015	09/15/2017	06/05/2013	09/12/2013	11/15/2013	01/17/2014
			Field Sample ID	D0211151	M353A8X	M353B1X	M353B2X	M353B7X	M354A1X	M354A2X	M354A3X	M354A4X	M354A5X	M354A6X	M354A7X	M354A8X	M354B1X	M354B2X	D0915171	M354B6X	M355A1X	M355A2X	D1115131	M355A3X	M355A4X	M355A6X	M355A7X	M355A8X	M355A9X	M355B2X	M355B3X	M355B7X	M356A1X	M356A2X	M356A3X	M356A4X
			SDG	CS199	CS199	CS271	CS300	CS604	RFZ79	CS008	CS045	CS055	CS082	CS122	CS189	CS199	CS271	CS300	CS604	CS604	RFZ79	CS008	CS045	CS045	CS055	CS084	CS122	CS189	CS199	CS272	CS300	CS604	RFZ79	CS008	CS045	CS056
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1UJ	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1LCS2, CCV	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-356	MW-356	MW-356	MW-356	MW-356	MW-356	MW-356	MW-357	MW-357	MW-357	MW-357	MW-357	MW-357	MW-357	MW-357	MW-357	MW-357	MW-357	MW-357	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358
			Sample Date	04/10/2014	07/01/2014	11/20/2014	02/11/2015	08/13/2015	10/16/2015	09/19/2017	06/06/2013	09/13/2013	11/19/2013	01/17/2014	05/06/2014	07/01/2014	11/25/2014	02/12/2015	05/13/2015	08/13/2015	10/27/2015	09/19/2017	06/27/2013	09/13/2013	11/19/2013	11/19/2013	01/29/2014	05/06/2014	07/03/2014	08/28/2014	11/25/2014	02/12/2015	05/13/2015	08/13/2015	10/27/2015	09/19/2017
			Field Sample ID	M356A5X	M356A6X	M356A7X	M356A8X	M356B1X	M356B2X	M356B6X	M357A1X	M357A2X	M357A3X	M357A4X	M357A5X	M357A6X	M357A7X	M357A8X	M357A9X	M357B1X	M357B2X	M357B6X	M358A1X	M358A2X	M358A3X	M358A3X	M358A3X	M358A4X	M358A5X	M358A6X	M358A8X	M358A9X	M358B1X	M358B2X	M358B3X	M358B4X	M358B8X
			SDG	CS084	CS121	CS189	CS199	CS272	CS300	CS605	RFZ87	CS010	CS046	CS056	CS094	CS121	CS190	CS200	CS231	CS272	CS303	CS605	RFB22	CS010	1501647	CS046	CS058	CS094	CS122	CP488	CS190	CS200	CS231	CS272	CS303	CS605
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	11J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	0.5J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	-	2U	2U	2U	2U	2UJ	2U	2U	2U	2UJ	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	1U	0.5U	0.5U	150J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	3U	3U	3U	3U	11J	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3UJ	3U	3U	3U	-	3U	3U	3U	3U	4J	3U	3UJ	3U	3U	3UJ	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3UJ	3U	3U	3U	-	3U	3U	3U	3U	3UJ	3U	3UJ	3U	3U	3UJ	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	6U	6U	6U	6U	300J	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	14J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	330000	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	-	1U	1U	1U	1UJ	1UJ	1U	1U	1U	1UJ	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	1U	-	1U	1U	0.5U	0.5U	75J	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	-	2U	2U	2U	2U	2UJ	2U	2U	2U	2UJ	2U	2U
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	-	2U	2U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.20	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.00	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11000.00	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1LCS2, CCV	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1LCS2, CCV	1U	1U	1U	1U	-	1U	1U	1U	1U	1UJ	1U	1U	1U	1LCS2, CCV	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	-	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	0.5U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	-	0.7U	0.7U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	1U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	-	2U	2U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	-	1U	1U	0.5U	0.5U	7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	-	0.8U	0.8U	0.5U	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-373	MW-373	MW-373	MW-373	MW-373	MW-373	MW-373	MW-373	MW-373	MW-374	MW-374	MW-374	MW-374	MW-374	MW-374	MW-374	MW-374	MW-374	MW-374	MW-375	MW-375	MW-375	MW-375	MW-375	MW-375	MW-375	MW-375	MW-375	MW-376	MW-376	MW-376	MW-376	MW-376
			Sample Date	01/09/2014	04/15/2014	07/10/2014	11/25/2014	04/10/2015	06/12/2015	08/25/2015	10/29/2015	09/20/2017	04/10/2014	07/10/2014	07/10/2014	08/15/2014	11/18/2014	12/04/2014	04/10/2015	06/12/2015	08/25/2015	02/06/2018	01/10/2014	04/10/2014	07/10/2014	11/18/2014	11/18/2014	04/15/2015	06/12/2015	08/25/2015	12/06/2017	01/15/2014	04/17/2014	07/17/2014	07/17/2014	11/19/2014
			Field Sample ID	M373A1X	M373A2X	M373A3X	M373A4X	M373A6X	M373A7X	M373A8X	M373A9X	M373B4X	M374A1X	D0710141	M374A2X	M374A3X	M374A5X	M374A4X	M374A6X	M374A7X	M374A8X	M374B7X	M375A1X	M375A2X	M375A3X	D1118141	M375A4X	M375A5X	M375A6X	M375A7X	M375B3X	M376A1X	M376A2X	D0717141	M376A3X	M376A5X
			SDG	CS050	CS086	CS123	CS190	CS218	CS251	CS277	CS305	CS606	CS085	CS123	CS123	CP463	CS187	CP613	CS218	CS251	CS277	CS641	CS051	CS085	CS123	CS187	CS187	CS220	CS251	CS277	CS624	CS054	CS087	CS126	CS126	CS188
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	10J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3J	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	7J	6U	10J	8J	7J	8J	9J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6J	6U	6U	6U	6U	6U	6U	8J	6U	6U	6J	11J	10J	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	51	95	96	54	32	41	32	44	55	3	1J	5	1	1	1	0.5U	0.6J	1	0.5U	24	130	240	220	98
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	2U	3J	2U	2U	2U	2U	2U	2U	37J	35	35	22	35	33	32	35	24	19	25	16J	24	8	7	8	25	17	10J	14	21U	19J	17J	15
Dibromochloromethane	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	37	110	110	86	61	66	26	53	95	1	2J	5	1	0.9J	0.9J	1J	0.6J	2	0.7J	3J	11	3	3	2
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	15	25	26	23	27	22	10	27	27	9	35	28	24	29	28	18	32	31	46	2J	5	3J	2J	2J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	3J	2	1	0.5U	2	3	1	1	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	25	22	23	16	26	23	20	22	16	10	23	16	10	9	8	4J	14	9	18	4J	9	3J	3J	4J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	32	80	80	98	53	59	24	36	68	7	4J	7	3	2	2	3	3	7	1U	5J	17	18	15	11
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	650	800	810	850	880	760	390	790	1000	190	76	120	120	87	85	40	66	47	7	100	210	99	84	97
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	3700	-	3100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-378	MW-378	MW-378	MW-378	MW-378	MW-378	MW-378	MW-378	MW-378	MW-379
			Sample Date	12/08/2014	04/14/2015	05/15/2015	09/01/2015	10/14/2015	11/03/2015	11/03/2016	03/21/2017	08/25/2017	01/15/2014	04/17/2014	07/17/2014	09/12/2014	11/19/2014	04/09/2015	05/13/2015	05/15/2015	09/01/2015	10/14/2015	11/03/2015	11/03/2016	03/21/2017	08/25/2017	01/09/2014	05/06/2014	07/11/2014	11/25/2014	04/14/2015	06/10/2015	09/03/2015	11/05/2015	12/06/2017	01/15/2014
			Field Sample ID	M376A4X	M376A6X	M376A7X	M376A8X	M376A9X	M376B1X	M376B3X	M376B4X	M376B5X	M377A1X	M377A2X	M377A3X	M377A4X	M377A5X	M377A6X	M377A8X	M377A7X	M377A9X	M377B1X	M377B2X	M377B4X	M377B5X	M377B6X	M378A1X	M378A2X	M378A3X	M378A4X	M378A5X	M378A6X	M378A7X	M378A8X	M378B4X	M379A1X
			SDG	CP620	CS219	CS232	CS281	CP881	CS307	CS479	CS528	CS594	CS054	CS087	CS126	CP506	CS188	CS217	CP711	CS232	CS281	CP881	CS307	CS479	CS528	CS594	CS050	CS094	CS124	CS190	CS219	CS250	CS282	CS309	CS624	CS054
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	20U	2U	2U	2U	20U	2U	10U	2U	2U	2U	2U	2U	2UJ	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	20U	2U	10U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U	3U	3U	3U	30U	4J	15U	3U	3U	3U	3U	3U	5J	15U	9J	4J	3J	35	5J	25	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	30U	3U	3U	3U	30U	3U	15U	3U	3U	3U	3UJ	3U	3U	15U	3U	3U	3U	3U	3U	3U	3UJ	3UJ	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	30U	3U	3U	3U	30U	3U	15U	3U	3U	3U	3UJ	3U	3U	15U	3U	3U	3U	3U	3U	3U	3UJ	3UJ	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	8J	6U	6U	6U	60U	6J	8J	6U	60U	7J	30U	8J	6U	6U	9J	6U	12J	30U	18J	6U	8J	16J	6U	27	6U	10J	51	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	240	220	140	19	220	160	94	250	330	74	150	170	9	67	330	120	190	15	37	93	5	700	510	970	160	190	490	290	350	270	270	130	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1UJ	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	3U	1U	0.5U	0.5U	0.5J	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Cyclohexane	ug/L	N	100	45	13	9	2U	10	8	6	54	31	60	75J	100J	7	36J	110	41	62	2U	15	25	2U	86	55	230	130	130	260	56	150	180	89	200	2U
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	20U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	7	5	4	0.5U	4	3	2	11	9	17J	26	27	2	11	43	14	20	1	5	9	0.5U	44	16	200	55	48	73	17	24	20	16	2	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	6	3J	2J	1U	3J	2J	2J	8	7	36J	45	44	5	26J	54	20J	30	4J	22	27	1J	44	30	110	28	35	54	39	37	48	37	52	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	16	4J	2J	1U	4J	2J	3J	40J	13	40J	66	56	5J	17J	72	20J	35	2J	11	15	1U	33J	17J	240	100	82	170	32	88	130	44	91	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	2U	2U	2U	20U	2U	10U	2U	2U	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	1U	1U	1U	10U	1U	5U	1U	1U	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U
Toluene	ug/L	N	600	29	18	10	1	14	10	9	25	36	29J	36	44	5	30	87	31	42	1	14	26	0.6J	120	57	11	1	2	8	2	4	42	8	3J	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	8U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	20U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	0.5U	0.5U	0.5U	5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U
Xylene (total)	ug/L	N	1000	270	140	94	9	130	87	87	280	370	64	100	100	6	50	200	52	82	5	37	66	2	250	140	30	4	9	21	4	7	15	3	3	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	1800	-	-	-	1100	-	-	-	-	-	-	-	390	-	-	-	-	-	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-391	MW-391	MW-391
			Sample Date	04/15/2014	07/11/2014	04/14/2015	06/16/2015	08/27/2015	10/29/2015	11/09/2016	03/22/2017	08/24/2017	01/15/2014	04/15/2014	07/11/2014	04/14/2015	06/10/2015	06/10/2015	08/27/2015	10/29/2015	11/08/2016	03/22/2017	08/30/2017	04/15/2014	07/11/2014	04/09/2015	04/09/2015	06/16/2015	08/27/2015	10/29/2015	11/08/2016	03/22/2017	08/24/2017	06/25/2014	08/19/2014	12/11/2014
			Field Sample ID	M379A2X	M379A3X	M379A4X	M379A5X	M379A6X	M379A7X	M379A9X	M379B1X	M379B2X	M380A1X	M380A2X	M380A3X	M380A4X	D0610151	M380A5X	M380A6X	M380A7X	M380A9X	M380B1X	M380B2X	M383A1X	M383A2X	D0409151	M383A3X	M383A4X	M383A5X	M383A6X	M383A8X	M383B9X	M383B1X	M391A1X	M391A2X	M391A3X
			SDG	CS086	CS124	CS219	CS252	CS279	CS305	CS482	CS529	CS593	CS054	CS086	CS124	CS219	CS250	CS250	CS279	CS305	CS481	CS529	CS596	CS086	CS124	CS217	CS217	CS252	CS279	CS305	CS481	CS529	CS593	CP388	CP470	CP623
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	9J	3U	3U	3U	3U	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U	3J	5J	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3UJ	3UJ	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3UJ	3UJ	3U	3U	3U	3U	6U	3U	3U	3U	3UJ	3UJ	3U	3U	3UJ	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	6U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	22	7J	6U	6U	6U	6U	16J	11J	10J	9J	7J	6U	6U	22	13J	8J	10J	11J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3	0.5U	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	7	5	4	3	2	2	0.5U	4	0.5U	4	1	1300	870	60	51	15	1	0.5U	0.5U	0.5U	0.7J	210	210	310
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8J	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	61	38	15	10	2U	2U	2U	2U	2U	15	2U	4J	4U	3J	3J	2U	2U	2U	2U	2U	2J	280	210	310
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	46	35	25	20	13	12	0.5U	8	0.5U	16	0.9J	10	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	65	69	110
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	40	29	30	15	18	17	4J	10	1J	18	10	19	2U	5	3J	5J	1J	1J	1U	7	8	22	24	37
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	240	200	44	22	37	37	1U	19	9	19	19	40	49	48	55	6	1U	2J	1U	4J	180	130	100	200
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8J	0.7J	0.7J	0.6J	0.6J	0.6J	0.5U	0.5U	0.5U	0.5J	0.5U	0.8J	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	66	78	130
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	6	4	4	4	3	3	1J	4	0.5U	3	1	14	10	3	3	3	0.5U	0.5U	0.5U	0.5U	0.5J	910	1100	1700
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4300J	5100J	8200

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-391	MW-392	MW-392	MW-393	MW-393	MW-393	MW-395	MW-395	MW-395	MW-395	MW-395	MW-395	MW-395	MW-395	MW-396	MW-396	MW-396	MW-396	MW-396	MW-397	MW-397	MW-397	MW-397	MW-398	MW-398	MW-398	MW-398	MW-398	MW-398	MW-401R	MW-401R	MW-401R	MW-401R
			Sample Date	11/14/2017	08/19/2014	12/11/2014	09/12/2014	05/13/2015	10/14/2015	05/06/2014	07/10/2014	11/18/2014	04/10/2015	06/12/2015	08/25/2015	12/06/2017	12/06/2017	03/18/2014	03/18/2014	06/13/2014	10/17/2017	12/11/2017	03/18/2014	06/13/2014	10/16/2017	12/12/2017	06/12/2014	06/12/2014	09/24/2014	10/16/2017	12/08/2017	12/08/2017	11/15/2017	11/15/2017	03/05/2018	03/05/2018
			Field Sample ID	M391A4X	M392A1X	M392A2X	M393A1X	M393A3X	M393A4X	M395A1X	M395A2X	M395A3X	M395A4X	M395A5X	M395A6X	D1206171	M395B2X	D0318148	M396A1X	M396A2X	M396A3X	M396A4X	M397A1X	M397A2X	M397A3X	M397A4X	D0612148	M398A1X	M398A2X	M398A3X	D1208178	M398A4X	D1115178	M401RA5X	D0305188	M401RA6X
			SDG	CQ885	CP470	CP623	CP506	CP711	CP881	CS094	CS123	CS187	CS218	CS251	CS277	CS624	CS624	CP282	CP282	CP364	CQ820	CQ923	CP282	CP355	CQ816	CQ928	CP361	CP361	CP517	CQ816	CQ922	CQ922	CQ889	CQ889	CQ992	CQ992
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	FD	REG	FD	REG	FD	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5UJ	0.5U	10U	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	4U	0.5UJ	0.5U	10U	0.8U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5UJ	0.5U	10U	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5UJ	0.5U	10U	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	10U	2UJ	2U	40U	2U	2U	2U	2U	4UJ	4UJ	2U	2U	20U	20U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	5U	0.5UJ	0.5U	10U	1U	0.5U	0.5U	0.5U	1UJ	1UJ	0.6J	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	1UJ	1U	20U	1U	1U	1U	1U	2UJ	2UJ	1U	1U	10U	10U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	10U	10U	2UJ	2U	40U	2U	2U	2U	2U	4UJ	4UJ	2U	2U	20U	20U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	5U	0.5UJ	0.5U	10U	1U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	1UJ	1U	20U	1U	1U	1U	1U	2UJ	2UJ	1U	1U	10U	10U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5UJ	0.5U	10U	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	1	1	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5UJ	0.5U	10U	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	1UJ	1U	20U	1U	1U	1U	1U	2UJ	2UJ	1U	1U	10U	10U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	1UJ	1U	20U	1U	1U	1U	1U	2UJ	2UJ	1U	1U	10U	10U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	5J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15U	15U	4J	3U	60U	3U	5J	3J	3U	6UJ	6UJ	3U	3J	30U	30U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15U	15U	3UJ	3U	60UJ	3U	3U	3U	3U	6UJ	6UJ	3U	3U	30U	30U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	15U	15U	3UJ	3U	60U	3U	3U	3U	3U	6UJ	6UJ	3U	3U	30U	30U	3U	3U	3U	3U
Acetone	ug/L	N	6000	14J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	30U	30U	10J	6U	120U	7J	12J	14J	26	12UJ	12UJ	6U	9J	60U	60U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	420	20	34	0.5U	0.5U	0.5U	48	25	37	28	24	8	11	11	120	140	150J	160	100	19	5	2	2	40J	43J	67	4	5U	5U	360	380	250J	350J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5UJ	0.5U	10U	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5UJ	0.5U	10U	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	5U	0.5UJ	0.5U	10U	1U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	2J	1U	1U	1U	1U	1U	1U	1U	1U	1J	1U	1U	1U	5U	5U	1UJ	1U	20U	1U	1U	1U	1U	2UJ	2UJ	1U	1U	10U	10U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5UJ	0.5U	10U	0.5U	0.5U	0.5UJ	0.5U	1UJ	1UJ	0.5U	0.5UJ	5U	5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	4U	0.5UJ	0.5U	10U	0.8U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	5U	0.5UJ	0.5U	10U	1U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	4U	0.5UJ	0.5U	10U	0.8U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	5U	0.5UJ	0.5U	10U	1U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	4U	0.5UJ	0.5U	10U	0.8U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5UJ	0.5U	10U	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	310	6	3J	2U	2U	2U	90	87	67	110	74	55	34J	48J	19J	19J	23J	10	40U	22	15	13	19	47J	47J	62	48	20U	20U	9	8	4J	7J
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5UJ	0.5U	10U	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	10U	0.5UJ	0.5UJ	10U	2U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	83	10	6	0.5U	0.5U	0.5U	69	41	61	45	39	5	2	2	40	51	23J	96	53	2J	2	0.6J	0.6J	59J	63J	140	3	5U	5U	13	11	6J	11J
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	33	6	5J	1U	1U	1U	11	12	13	12	11	15	7	6	5J	6J	2J	10	20U	33	34	34	32	12J	13J	23	26	14J	15J	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	1UJ	1U	20U	1U	1U	1U	1U	2UJ	2UJ	1U	1U	10U	10U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5UJ	0.5U	10U	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	150	2J	2J	1U	1U	1U	80	89	57	96	71	62	47	46	14J	15J	20J	8	20U	24	23	29	32	47J	46J	69	42	10U	10U	9	7	4J	8J
Methylene chloride (Dichloromethane)	ug/L	N	3	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	10U	10U	2UJ	0.5U	10U	2U	2U	0.5U	0.5U	4UJ	4UJ	2U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	5U	5U	1UJ	1U	20U	1U	1U	1U	1U	2UJ	2UJ	1U	1U	10U	10U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5UJ	0.5U	10U	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	170	26	27	0.5U	0.5U	0.5U	100	58	75	66	50	24	19	19	6J	6J	0.5UJ	5	10U	5J	4	4	5	4J	5J	5	1	5U	5U	28	26	0.5U	0.5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4U	4U	0.5UJ	0.5U	10U	0.8U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5UJ	0.5U	10U	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5UJ	0.5U	10U	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	10U	10U	0.5UJ	0.5U	10U	2U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	3U	0.5UJ	0.5U	10U	0.5U	0.5U	0.5U	0.5U	1UJ	1UJ	0.5U	0.5U	5U	5U	0.5U	0.5U	0.5U	0.5U
Xylene (total)	ug/L	N	1000	1500	190	140	0.5U	0.5U	0.5U	390	260	500	370	340	180	200	190	130	140	110J	41	10U	45	36	17	19	76J	82J	96	17	5U	5U	180	170	0.6J	0.5U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1900	2000	-	-	1200J+	910	-	-	-	1300	920	880	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	1300J	980	94	-	100	-	-	-	-	-	-	-	-	1500	1700	1700	-	-	970	770	-	-	1500	1700	2600	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-402	MW-402	MW-402	MW-402	MW-402	MW-402	MW-402	MW-403	MW-403	MW-403	MW-403	MW-403	MW-404	MW-404	MW-404R	MW-404R	MW-404R	MW-404R	MW-405	MW-405	MW-405	MW-405	MW-405	MW-406	MW-406	MW-406	MW-406	MW-406	MW-406	MW-406	MW-406	MW-406	MW-406
			Sample Date	09/26/2014	10/28/2014	03/10/2015	05/28/2015	09/17/2015	10/11/2017	01/24/2018	06/06/2014	07/28/2014	12/04/2014	10/16/2017	12/08/2017	06/24/2014	08/13/2014	04/26/2017	09/05/2017	11/30/2017	03/06/2018	08/15/2014	12/10/2014	12/12/2014	11/21/2017	02/13/2018	06/20/2014	06/20/2014	08/13/2014	08/13/2014	12/03/2014	03/11/2015	09/13/2017	11/30/2017	03/13/2018	03/13/2018
			Field Sample ID	M402A1	M402A2	M402A3	M402A4	M402A5	M402B7	M402B8	M403A1X	M403A2X	M403A3X	M403A4X	M403A5X	M404A1X	M404A2X	M404RA4X	M404RA5X	M404RA6X	M404RA7X	M405A1X	M405A2X	M405A3X	M405A5X	M405A6X	D0620148	M406A1X	D0813148	M406A2X	M406A3X	M406A4X	M406A6X	M406A7X	D0313188	M406A8X
			SDG	CS162	CS177	CS207	CS243	CS286	CS615	CS636	CP355	CP426	CP613	CQ816	CQ922	CP384	CP459	CQ608	CQ755	CQ910	CQ994	CP463	CP622	CS192	CQ899	CQ973	CP376	CP376	CP459	CP459	CP611	CP666	CQ768	CQ910	CQ999	CQ999
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG	FD	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	2U	20UJ	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	2U	2UJ	2UJ	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	10UJ	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1UJ	1UJ	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	10U	2U	2U	2U	2U	2U	2U	20UJ	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	4U	2U	2U	2UJ	2UJ	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	10UJ	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1UJ	1UJ	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	10UJ	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1UJ	1UJ	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	10UJ	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1UJ	1UJ	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	15U	3UJ	3U	5J	3U	3J	3U	30UJ	13	3UJ	3U	6J	3U	3U	3U	3U	3U	3U	6U	3J	4J	3UJ	3UJ	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	15U	3UJ	3U	3U	3U	3U	3U	30UJ	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	6U	3U	3U	3UJ	3UJ	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	15U	3UJ	3U	3U	3U	3U	3U	30UJ	3U	4J	3U	3U	3U	3U	3U	3U	3U	3U	6U	3U	3U	3UJ	3UJ	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	30U	6U	6U	16J	6U	17J	6U	60UJ	40	17J	6U	18J	10J	120	6U	6U	6U	6U	12U	8J	11J	6UJ	6UJ	6U	6U	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.7J	0.5U	0.5U	3U	0.5U	0.5U	520	430	840	65	38J	54	13J	280	360	50	25	1	0.6J	0.5U	1	1U	150	130	48J	35J	100	16	62	110	110	110
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	ug/L	N	4	0.5UJ	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5UJ	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	5U	1U	1U	8	6	8	1U	10UJ	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1UJ	1UJ	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5UJ	0.5U	0.5UJ	0.5UJ	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.6J	0.5U	0.5U	5UJ	0.5U	0.5UJ	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	3U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	10U	2U	2U	51	9	22	2U	20UJ	30	25J	46	42	16	18	2U	2U	2U	2U	4U	20	19	11J	9J	19	5J	12	20	14	14
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5UJ	0.5U	0.5UJ	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	55	17	41	3	5UJ	34	17J	58	64	44	30	0.5U	0.5U	0.5U	0.5U	1U	33	31	13J	10J	27	6	20	32	29	29
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	5U	1U	1U	23	6	15	4J	10UJ	4J	2J	5	6	5J	4J	1U	1U	1U	1U	2U	3J	3J	2J	1J	3J	1U	2J	4J	3J	3J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	5U	1UJ	1U	1U	1U	1U	1U	10UJ	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1UJ	1UJ	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	5U	1U	1U	50	9	21	2J	10UJ	21	19J	28	27	9	9	1U	1U	1U	1U	2U	12	12	6J	5J	12	3J	5	15	6	7
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	10U	0.5U	0.5U	2U	2U	2U	0.5U	5UJ	2U	2UJ	2U	2U	0.5U	0.5U	2U	2U	2U	0.5U	1U	2U	2U	2UJ	2UJ	2U	2U	2U	0.5U	0.5U	0.5U
Styrene	ug/L	N	100	1U	1U	1U	1U	5U	1U	1U	1U	1U	1U	1U	10UJ	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	2U	1U	1U	1UJ	1UJ	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5UJ	0.5UJ	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	26	7	26	2	5UJ	5	2J	12	8	3	2	0.5U	0.5U	0.5U	0.5U	1U	7	6	3J	3J	3	1	3	4	3	3
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5UJ	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1	0.9J	0.5UJ	0.5UJ	0.6J	0.5U	0.5U	0.9J	0.8J	0.7J
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	3U	0.5U	0.5U	73	29	66	8	9J	66	23J	120	57	30	24	0.8J	0.5U	0.5U	0.9J	1U	38	36	19J	16J	25	8	17	33	20	20
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	430J	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	3500J+	-	-	-	-	870	400	-	-	-	-	26J	36J	-	-	-	640J+	490J+	290	280	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-407	MW-407	MW-407	MW-407	MW-407	MW-415	MW-415	MW-422	MW-423	MW-424	MW-433	MW-433	MW-433	MW-434R	MW-434R	MW-434R	MW-434R	MW-434R	MW-435R	MW-435R	MW-435R	MW-435R	MW-435R	MW-435R	MW-441R	MW-441R	MW-441R	MW-441R	MW-441R	MW-441R	MW-474	MW-474	MW-5
			Sample Date	06/24/2014	08/13/2014	09/08/2017	12/05/2017	03/13/2018	05/29/2015	08/26/2015	10/12/2015	10/12/2015	09/15/2015	08/26/2015	08/26/2015	10/13/2015	05/17/2017	08/21/2017	10/31/2017	02/05/2018	05/02/2018	05/01/2017	08/23/2017	10/31/2017	02/06/2018	02/06/2018	05/02/2018	06/09/2017	08/22/2017	10/30/2017	02/07/2018	05/03/2018	05/03/2018	10/10/2017	01/25/2018	06/29/1995
			Field Sample ID	M407A1X	M407A2X	M407A4X	M407A5X	M407A6X	M415A1X	M415A2X	M422A1X	M423A1X	M424A1X	D0826158	M433A1X	M433A2X	M434RA4X	M434RA5X	M434RA6X	M434RA7X	M434RA8X	M435RA3X	M435RA4X	M435RA5X	D0206188	M435RA6X	M435RA7X	M441RA3X	M441RA4X	M441RA5X	M441RA6X	D0503188	M441RA7X	M474A9	M474B1	MW-0005-A
			SDG	CP384	CP459	CQ761	CQ914	CQ999	CP724	CP828	CP872	CP872	CP839	CP828	CP828	CP880	CQ641	CQ742	CQ855	CQ964	CR046	CQ615	CQ744	CQ855	CQ965	CQ965	CR046	CQ617	CQ743	CQ854	CQ968	CR049	CR049	CS614	CS637	PROJB506361
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	-
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.9J	0.5U	0.5U	0.5U	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	-
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	10U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	9.5U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	9	2	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	7	6	3	3	1	0.5U	0.5U	5U	5.0U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2	2	0.5U	1J	0.5U	0.5U	0.5U	5U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	9.5U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	9.5U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	20	5J	7J	19	3U	7J	3U	3U	3UJ	3U	3J	3U	16	46	17	15	22	19	9J	3J	3U	3U	3U	3U	160	51	7J	7J	3U	3U	3U	30U	100U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	5J	9J	3U	3U	3U	3U	3U	30U	-
4-Methyl-2-pentanone	ug/L	N	100	3U	4J	3U	3U	3U	3U	3U	3U	3UJ	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	5J	3U	3U	3U	3U	3U	3U	30U	-
Acetone	ug/L	N	6000	12J	6UJ	24	16J	6U	13J	6U	6U	6U	6U	22J	15J	180	740	210	400	380	310	130	12J	64	6U	6U	14J	1100	580	71	18J	61	60	6U	60U	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	35	35J	30	26	9	64	86	27	1	84	3J	2J	1	8	3	2	3	8	0.8J	1	0.5U	0.5U	0.5U	0.5U	15	28	25	14	11	11	6	5U	5.0U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
Bromoform	ug/L	N	4	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.6J	0.5J	2J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	120	120	74	54	33	3	0.5U	0.6J	0.5U	0.5U	0.5U	120	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1UJ	1U	1U	1U	1U	6	1U	1U	1U	3J	3J	1U	37	15	12	8	17	4J	6	1J	1U	1U	1U	57	21	1J	1U	1U	1U	1U	10U	10U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
Chlorobenzene	ug/L	N	50	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	5.0U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	13	5	13	7	7	0.7J	0.9J	0.5U	0.5U	0.5U	0.5U	37	21	9	4	4	4	0.5U	5U	-
Chloroform	ug/L	N	70	0.5U	0.5UJ	0.5U	0.5U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5	3	2	1	0.5U	0.5U	0.5U	5U	5.0U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	300	280	460	320	310	13	14	4	0.5U	0.5U	0.9J	1700	0.9J	0.5U	0.5U	0.5U	0.5U	0.5UJ	5U	-
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
Cyclohexane	ug/L	N	100	6	6J	6	5	5J	110	56	130	19	110	10	8	4J	10	5	7	6	8	6	59	2U	2U	2U	2U	32	30	66	38	28	28	21	22J	-
Dibromochloromethane	ug/L	N	1	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	5U	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	6	6J	7	6	3	480	350	1J	0.5U	76	1	0.8J	0.5U	0.9J	0.5U	0.5U	0.5U	3	3	2	0.5U	0.5U	0.5U	0.5U	6	48	62	22	32	33	5	5U	5.0U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1J	1J	1J	1U	1U	32	26	23	1J	11	1U	1U	1U	1U	1U	1U	1U	1J	1J	2J	1U	1U	1U	1U	2J	14	20	7	8	8	2J	10U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.9J	1	2	0.9J	0.5U	0.5U	0.5U	5U	-
Methylcyclohexane	ug/L	N	100	7	5J	4J	4J	3J	160	94	90	32	71	14	12	4J	9	6	8	7	9	8	110	1U	1U	1U	1U	30	30	67	35	27	27	9	11J	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2UJ	2U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	15	3J	4	2	2	2U	2U	0.5U	0.5U	0.5U	0.5U	6	10	4	3	2	2	0.5U	5U	-
Styrene	ug/L	N	100	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	5.0U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5UJ	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
Toluene	ug/L	N	600	5	5J	5	2	0.5U	100	26	7	0.5U	150	3J	2J	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1J	0.6J	0.5U	0.5U	0.5U	27	5U	5.0U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7J	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	5U	-
Xylene (total)	ug/L	N	1000	22	22J	27	15	4	1700	860	10	0.5U	530	10J	6J	2	0.5U	0.5U	0.5U	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	18	10	4	5	5	58	18	5.0U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	410	340	-	-	-	7900	7300	-	-	6900	390	310	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-512	MW-512	MW-517	MW-517	MW-517	MW-518	MW-518	MW-518	MW-519	MW-519	MW-519	MW-521	MW-521	NF-10	NF-10	NF-10
			Sample Date	10/25/2002	02/12/2003	09/02/2003	06/14/2005	11/11/2005	06/13/2006	11/28/2006	06/12/2007	08/12/2008	07/09/2009	06/29/2010	07/26/2011	02/28/2012	04/05/2013	05/30/2014	06/15/2016	05/03/2017	03/13/2017	05/05/2017	08/15/2017	11/14/2017	02/14/2018	08/16/2017	11/15/2017	02/16/2018	08/16/2017	11/16/2017	02/21/2018	10/31/2017	02/05/2018	04/28/1998	04/28/1998	04/29/1998
			Field Sample ID	M005A2Y	M005A3Y	M005A4	M005A7X	M005A8X	M005A9X	M005B1X	M005B2X	M005B3X	M005B4X	M005B5X-100629	M005B6X	M005B7X	M005B8X	M005B9X	M005C1X	M005C2X	M512A1X	M512A2X	M517A1X	M517A2X	M517A3X	M518A1X	M518A2X	M518A3X	M519A1X	M519A2X	M519A3X	M521A1A	M521A2X	N010PS1	N010PS5	N010PS2
			SDG	RFE35	RFE64	RFE85	947365	967213	993388	1015744	1042260	1105054	1152857	RFS51	RFT46	RFU13	RFY57	CS107	CS416	CS553	CQ555	CQ625	CQ736	CQ886	CQ975	CQ738	CQ888	CQ980	CQ738	CQ891	CQ988	CQ857	CQ963	E33767	E33767	E33866
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	200	200	130	36	26	41	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	2300	1400	1200	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	40	48	51	110	78	120	0.5U	2	3	3U	0.5U	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	4U	2U	2U	2U	2U	2U	2U	2U	2U	10U	2U	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	5.0U	1.0U	1.0U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1.4U	-	1.4U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.6J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	4.8U	0.95U	0.95U
1,2-Dichloropropane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1.2U	-	1.3U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	1.2U	-	1.2U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	4J	10	6U	3U	3U	3U	3U	3U	4J	7J	11	15U	13	3.6U	0.73U	0.73U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U	15U	3U	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	6U	3U	3U	3U	3U	3U	3U	3U	3U	15U	3U	-	-	-
Acetone	ug/L	N	6000	7J	12J	6J	6U	8J	6U	7J	-	-	-	-	-	-	-	-	-	-	6U	34	12U	6U	6U	6U	6U	6U	38	80	80	30U	34	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	12	10	1U	0.5U	0.5U	5	4	4	0.5U	0.9J	0.5U	45	3600J	284	495	156
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
Bromoform	ug/L	N	4	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5UJ	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66000	63000	61000	69000	48000	42000	4000U	4000U	2600U	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	1U	3J	1U	5U	1U	2.4U	0.49U	0.49U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	4.6U	0.93U	0.93U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
Chloroform	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	4.4U	0.88U	0.88U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
Cyclohexane	ug/L	N	100	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	54	41	4U	2U	2U	2U	2U	2U	2U	2U	2U	10U	150	-	-	-
Dibromochloromethane	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	2	1	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	8	860	34.4	77.7	0.53
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	21	19	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U	49	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	26	140	-	-	-
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	100	94	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U	48	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	4U	0.6J	0.5U	2U	0.5U	0.5U	2U	0.5U	0.5U	3U	0.5U	-	-	-
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	2U	1U	1U	1U	1U	1U	1U	1U	1U	5U	1U	3.9U	0.78U	0.78U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	7	5	4	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	3	2	1U	0.5U	0.5U	43	0.9J	0.5U	0.5U	0.5U	0.5U	3U	910	49.9	87.6	3.4
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	17	16	11	4	2	3	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	2U	2U	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	1U	1U	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	1U	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3U	0.5U	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	12	9	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	13	3600	761	1030	4.4
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1200	950	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10
			Sample Date	04/30/1998	04/30/1998	05/01/1998	10/04/2001	01/23/2002	04/04/2002	07/16/2002	09/25/2002	09/25/2002	10/01/2002	01/06/2003	04/25/2003	07/08/2003	10/13/2003	03/02/2004	05/04/2004	08/04/2004	12/16/2004	12/16/2004	02/03/2005	05/04/2005	08/09/2005	10/04/2005	01/12/2006	04/20/2006	08/11/2006	10/06/2006	01/19/2007	05/22/2007	08/07/2007	11/08/2007	01/17/2008	05/20/2008
			Field Sample ID	N010PS3	N010PS6	N010PS4	NF10401	NF10102	NF10202	NF10302	NF10PS3	NF10PSL	NF10402Y	NF10103X	NF10203Y	NF10303	NF10403A	NF10104A	NF10204A	NF10304	NF10404X	NF10404X	NF10105X	NF10205X	NF10305X	NF10405X	NF10106X	NF10206X	NF10306X	NF10406X	NF10107X	NF10207X	NF10307X	NF10407X	NF10108X	NF10208X
			SDG	E33866	E33866	E33923		269011	279120	293320	RFE25	RFE25	GWC01	GWC02	GWC04	GWC06	GWC08	RFE98	GWC10	RFF18	GWC17	NFE16	GWC18	942145	954690	961782	974195	986437	1001382	1008884	1022362	1039430	1050409	1064801	1073788	1092256
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	1.0U	-	-	-	-	-	0.9U	-	-	2U	0.9U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	1.0U	-	-	-	-	-	1U	-	-	2U	1U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	1.0U	-	-	-	-	-	1U	-	-	2U	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	1.0U	-	-	-	-	-	1U	-	-	7J	1U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4U	-	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	-	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	1.0U	-	-	-	-	-	1U	-	-	2U	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	0.9U	-	10.0U	-	-	-	0.3U	-	0.3U	-	0.3U	2U	0.3U	-	0.3U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4U	-	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	-	2U
1,2-Dibromoethane	ug/L	N	0	2.5U	5.0U	1.0U	-	-	-	-	1U	1U	-	-	-	-	-	2U	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1.4U	-	1.4U	0.8U	-	1.0U	-	1U	1U	0.3U	-	0.3U	-	0.3U	2U	0.3U	-	0.3U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	2.4U	4.8U	0.95U	-	-	1.0U	-	-	-	-	-	2U	-	-	2U	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	1.0U	-	-	-	-	-	1U	-	-	2U	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	10.0U	-	-	-	0.2U	-	0.2U	-	0.2U	-	0.2U	-	0.2U	-	-	-	-	1U	-	1U	-	1U	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1.3U	-	1.2U	0.8U	-	1.0U	-	-	-	0.3U	-	0.3U	-	0.3U	2U	0.3U	-	0.3U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1.2U	-	1.2U	0.9U	-	1.0U	-	-	-	0.3U	-	0.3U	-	0.3U	2U	0.3U	-	0.3U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	1.8U	3.6U	0.73U	-	-	-	-	5J	3U	-	-	-	-	-	6U	-	-	-	5J	-	8J	-	3J	-	3U	-	5J	-	8J	-	-	-	4J
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6U	-	-	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	-	-	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6U	-	-	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	-	-	3U
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14J	-	-	-	22	-	25	-	10J	-	19J	-	13J	-	36	-	-	-	26
Acrolein	ug/L	N	NS	-	-	-	-	-	2.0U	-	-	-	-	-	40U	-	-	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	2.0U	-	-	-	-	-	10U	-	-	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	382	462	230	100	27.70	443	808	670	490	650	680	790	580	480	520	570	560	450	440	48	490	640	430	470	480	440	410	440	460	530	490	400	410
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	10.0U	-	-	-	31U	-	30U	-	30U	-	30U	-	29U	-	-	-	-	19U	-	20U	-	19U	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	1.0U	-	-	-	-	-	0.7U	-	-	2U	0.7U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Bromoform	ug/L	N	4	-	-	-	-	-	1.0U	-	-	-	-	-	0.8U	-	-	2U	0.8U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	1.0U	-	-	-	-	-	2U	-	-	2U	2U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1.2U	2.4U	0.49U	-	-	-	-	1U	1U	-	-	-	-	-	2U	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	1.0U	-	-	-	-	-	1U	-	-	2U	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Chlorobenzene	ug/L	N	50	2.3U	4.6U	0.93U	-	-	1.0U	-	0.8U	0.8U	-	-	0.8U	-	-	2U	0.8U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	1.0U	-	-	-	-	-	2U	-	-	2U	2U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Chloroform	ug/L	N	70	2.2U	4.4U	0.88U	-	-	1.0U	-	0.8U	0.8U	-	-	1U	-	-	2U	1U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	1.0U	-	-	-	-	-	2U	-	-	2U	2U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	2U	1U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	1.0U	-	-	-	-	-	1U	-	-	2U	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	330	-	-	-	240	-	300	-	230	-	340	-	240	-	270	-	-	-	260
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	1.0U	-	-	-	-	-	1U	-	-	2U	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	1.0U	-	-	-	-	-	-	-	-	4U	-	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	-	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	42.4	67.4	1.3	0.73U	2.000	19.9	39.8	54	12	42	56	81	64	35	63	87	49	51	45	9	57	52	41	63	61	45	45	53	54	62	46	42	49
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	78	-	-	-	63	-	95	-	63	-	92	-	68	-	93	-	-	-	76
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-	-	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	-	-	-	140	-	200	-	120	-	210	-	140	-	240	-	-	-	200
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	1.0U	-	-	-	-	-	2U	-	-	4U	2U	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	-	2U
Styrene	ug/L	N	100	2.0U	3.9U	0.78U	-	-	-	-	1U	1U	-	-	-	-	-	2U	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	1.0U	-	-	-	-	-	1U	-	-	2U	1U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
Toluene	ug/L	N	600	61.1	77.4	8.9	10	5.000	63.6	118	82	55	79	85	100	79	55	70	95	70	68	64	8	76	80	72	81	85	73	64	64	69	82	72	63	83
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	1U	-	-	2U	1U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	-	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	1.0U	-	-	-	-	-	0.6U	-	-	2U	0.6U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	1.0U	-	-	-	-	-	1U	-	-	2U	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	1.0U	-	-	-	-	-	2U	-	-	4U	2U	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	1.0U	-	-	-	-	-	2U	-	-	2U	2U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	-	1U
Xylene (total)	ug/L	N	1000	856	1030	13.9	340	121.0	955	1140	1200	1100	1200	1200	1800	1200	680	1300	1500	1000	1200	940	230	1100	1200	1100	1300	1300	980	1100	1100	1100	1100	1100	1100	1200
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-11
			Sample Date	07/15/2008	11/18/2008	01/27/2009	10/20/2009	02/04/2010	04/22/2010	07/27/2010	11/10/2010	03/02/2011	04/12/2011	07/19/2011	10/21/2011	02/02/2012	04/03/2012	07/17/2012	10/11/2012	02/05/2013	04/18/2013	07/25/2013	08/19/2013	10/16/2013	03/27/2014	04/25/2014	07/25/2014	08/18/2014	10/09/2014	12/05/2014	01/15/2015	05/05/2015	07/16/2015	10/08/2015	11/14/2017	10/16/2001
			Field Sample ID	NF10308X	NF10408X	NF10109X	NF10409X	NF10110X	NF10210X	NF10310x	NF10410X	NF10111X	NF10211X	NF10311X	NF10411X	NF10112X	NF10212X	NF10312X	NF10412X	NF10113X	NF10213X	NF10313X	NF10A2	NF10413X	NF10114X	NF10214X	NF10314X	NF10A3X	NF10414X	NF10A4X	NF10115X	NF10215X	NF10315X	NF10415X	NF10A5X	NF11401
			SDG	1100673	1120766	1129788	1167217	1181531	RFS39	RFS59	RFS78	RFS94	RFT07	RFT43	RFT80	RFU06	RFU36	RFV10	RFV63	RFX45	RFY95	RFB73	CP078	CS029	CS077	CS091	CS131	CP473	CS168	CP617	CS195	CS226	CS262	CS296	CQ885	
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	0.8U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	0.8U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	0.8U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	2U	-	-	4U	-	2U	-	2U	-	2U	-	-	2U	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	2U	-	1U	-	1U	-	1U	-	-	1U	0.0009U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	2U	-	-	4U	-	2U	-	2U	-	2U	-	-	2U	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	2U	-	1U	-	1U	-	1U	-	-	1U	0.0008U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	2U	-	1U	-	1U	-	1U	-	-	1U	0.0008U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	2U	-	1U	-	1U	-	1U	-	-	1U	0.0009U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	5J	-	-	-	6J	-	-	-	10	-	-	-	13	-	3J	-	-	8J	-	7J	-	4J	-	10	-	-	4J	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	3U	-	-	6U	-	3U	-	3U	-	3UJ	-	-	3U	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	3U	-	-	6U	-	3U	-	3U	-	3UJ	-	-	3U	-
Acetone	ug/L	N	6000	-	-	-	-	-	18J	-	-	-	6U	-	-	-	20J	-	-	-	31	-	9J	-	-	17J	-	19J	-	6U	-	26	-	-	11J	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	450	240	410	260	410	410	390	300	290	360	380	250	380	360	410	420	320	410	340	270	390	420	430	430	400	360	400	430	560	520	370	330	1U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
Bromoform	ug/L	N	4	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	2U	-	1U	-	1U	-	1U	-	-	1U	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	0.8U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
Chloroform	ug/L	N	70	-	-	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	0.8U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	0.8U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	320	-	-	-	300	-	-	-	280	-	-	-	280	-	210	-	-	300	-	230	-	320	-	350	-	-	150	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	2U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	40	34	56	26	45	46	42	39	40	46	41	28	47	45	45	52	43	48	39	15	34	47	47	36	34	25	43	44	50	40	25	21	0.00073U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	72	-	-	-	59	-	-	-	58	-	-	-	74	-	25	-	-	64	-	49	-	63	-	61	-	-	33	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7900	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	2U	-	1U	-	1U	-	1U	-	-	1U	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	0.5U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	0.5U	-	0.5U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	230	-	-	-	180	-	-	-	170	-	-	-	240	-	96	-	-	190	-	140	-	240	-	220	-	-	78	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	2U	-	-	4U	-	2U	-	2U	-	2U	-	-	0.5U	-
Styrene	ug/L	N	100	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	2U	-	1U	-	1U	-	1U	-	-	1U	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	0.8U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
Toluene	ug/L	N	600	69	55	78	53	63	70	71	60	57	66	72	48	64	69	74	78	60	72	66	49	66	75	69	65	60	66	66	76	90	83	71	49	0.00061U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	0.8U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	2U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	1U	-	-	1U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
Xylene (total)	ug/L	N	1000	1200	680	1200	840	1300	1200	1200	1000	1000	1100	1100	860	1200	1100	1100	1000	1100	1200	1100	780	1100	1300	1100	1000	750	1100	1200	1300	1300	1300	1100	680	0.00061U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4000	-	-	-	-	4400	-	6500	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11
			Sample Date	01/23/2002	04/04/2002	07/17/2002	10/01/2002	01/13/2003	04/24/2003	07/07/2003	10/09/2003	05/05/2004	08/04/2004	12/16/2004	12/16/2004	02/03/2005	05/04/2005	08/09/2005	10/04/2005	01/12/2006	04/20/2006	07/27/2006	10/06/2006	01/17/2007	04/24/2007	07/31/2007	07/31/2007	11/08/2007	11/08/2007	01/17/2008	05/06/2008	07/15/2008	10/03/2008	01/27/2009	04/28/2009	08/11/2009
			Field Sample ID	NF11102	NF11202	NF11302	NF11402Y	NF11103Y	NF11203Y	NF11303	NF11403	NF11204A	NF11304	NF11404X	NF11404X	NF11105X	NF11205X	NF11305X	NF11405X	NF11106X	NF11206X	NF11306X	NF11406X	NF11107X	NF11207X	D0731071	NF11307X	D1108071	NF11407X	NF11108X	NF11208X	NF11308X	NF11408X	NF11109X	NF11209X	NF11309X
			SDG	269011	279120	293541	GWC01	GWC02	GWC04	GWC06	GWC08	GWC11	RFF18	GWC17	NFE16	GWC18	942145	954690	961782	974195	986437	999108	1008884	1021982	1035058	1049322	1049322	1064801	1064801	1073788	1089841	1100673	1113378	1129788	1142383	1157187
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	Report Units	Filtered	CMI GW Action Limit	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
1,1 Dichloroethene	ug/L	N	1	-	1.0U	-	-	-	0.9U	-	-	0.9U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	-
1,1,1-Trichloroethane	ug/L	N	30	-	1.0U	-	-	-	1U	-	-	1U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	1.0U	-	-	-	1U	-	-	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
1,1,2-Trichloroethane	ug/L	N	3	-	1.0U	-	-	-	1U	-	-	1U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	-	2U	-	-	-	2U	-
1,1-Dichloroethane	ug/L	N	50	-	1.0U	-	-	-	1U	-	-	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	11.2U	-	0.3U	-	0.3U	-	0.3U	0.3U	-	0.3U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	-	2U	-	-	-	2U	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-	0.3U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	1.0U	-	-	-	2U	-	-	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
1,2-Dichloropropane	ug/L	N	1	-	1.0U	-	-	-	1U	-	-	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	11.2U	-	0.2U	-	0.2U	-	0.2U	0.2U	-	0.2U	-	-	-	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-	0.3U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-	0.3U	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	3U	-	3U	-	3U	-	3U	-	3U	-	10J	-	-	3U	-	-	3U	-	-	-	3U	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	2U	-	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	-	3U	-	-	3U	-	-	-	3U	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	3U	-	3U	-	3U	-	3U	-	3U	-	3U	-	-	3U	-	-	3U	-	-	-	3U	-
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	-	-	-	6U	-	6U	-	6U	-	8J	-	6J	-	20J	-	-	6U	-	-	6U	-	-	-	6U	-
Acrolein	ug/L	N	NS	-	2.0U	-	-	-	40U	-	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	2.0U	-	-	-	10U	-	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	13.80	98.1	18.1	190	120	94	61	130	64	97	58	60	8	32	18	0.5U	140	190	100	110	27	85	50	55	21	20	31	0.5U	17	74	47	4J	86
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	11.2U	-	32U	-	32U	-	29U	30U	-	32U	-	-	-	-	19U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	1.0U	-	-	-	0.7U	-	-	0.7U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
Bromoform	ug/L	N	4	-	1.0U	-	-	-	0.8U	-	-	0.8U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	1.0U	-	-	-	2U	-	-	2U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	1U	-	3J	-	1J	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	1.0U	-	-	-	1U	-	-	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
Chlorobenzene	ug/L	N	50	-	1.0U	-	-	-	0.8U	-	-	0.8U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	1.0U	-	-	-	2U	-	-	2U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
Chloroform	ug/L	N	70	-	1.0U	-	-	-	1U	-	-	1U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	1.0U	-	-	-	2U	-	-	2U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	1U	-	-	1U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	-
cis-1,3-Dichloropropene	ug/L	N	1	-	1.0U	-	-	-	1U	-	-	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	19	-	7	-	2U	-	72	-	22	-	35	-	-	12	-	-	2U	-	-	-	2U	-
Dibromochloromethane	ug/L	N	1	-	1.0U	-	-	-	1U	-	-	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	1.0U	-	-	-	-	-	-	-	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	-	2U	-	-	-	2U	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	1.700	33.5	1.30	86	170	130	44	110	100	78	45	37	1J	13	6	0.8U	91	160	45	38	9	97	23	25	7	5	18	0.8U	5J	17	26	1J	37
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	6	-	3J	-	1U	-	22	-	8	-	10	-	-	4J	-	-	1U	-	-	-	1U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-	-	0.5U	-	-	-	0.5U	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	8	-	2J	-	1U	-	41	-	7	-	11	-	-	4J	-	-	1U	-	-	-	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	1.0U	-	-	-	2U	-	-	2U	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	-	2U	-	-	-	2U	-
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	1.0U	-	-	-	1U	-	-	1U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	-
Toluene	ug/L	N	600	1.400	12.0	1.70	50	28	23	11	22	25	8	8	7	0.8U	5J	4J	0.7U	60	81	41	39	8	30	3J	3J	7	6	6	0.7U	9	51	36	5	83
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	1U	-	-	1U	-	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	0.8U	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	-
trans-1,3-Dichloropropene	ug/L	N	1	-	1.0U	-	-	-	0.6U	-	-	0.6U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	1.0U	-	-	-	1U	-	-	1U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	1.0U	-	-	-	2U	-	-	2U	-	-	2U	-	2U	-	2U	-	2U	-	2U	-	2U	-	-	2U	-	-	2U	-	-	-	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	1.0U	-	-	-	2U	-	-	2U	-	-	1U	-	1U	-	1U	-	1U	-	1U	-	1U	-	-	1U	-	-	1U	-	-	-	1U	-
Xylene (total)	ug/L	N	1000	17.90	133	22.3	310	380	290	210	270	260	210	120	98	13	46	26	0.8U	280	410	200	180	42	230	160	170	64	52	85	0.8U	52	170	120	10	240
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-12	NF-12	NF-12	NF-12	NF-12	NF-12	NF-12	NF-12	NF-12	NF-12	NF-12	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13
			Sample Date	10/22/2009	02/04/2010	04/22/2010	04/22/2010	07/27/2010	11/10/2010	03/02/2011	06/08/2011	07/08/2011	10/14/2011	02/02/2012	04/03/2012	10/15/2001	01/22/2002	04/10/2002	07/16/2002	10/11/2002	01/02/2003	04/25/2003	07/11/2003	10/02/2003	04/28/2004	07/22/2004	10/11/2001	02/13/2002	04/09/2002	07/17/2002	10/11/2002	01/03/2003	04/24/2003	07/03/2003	10/02/2003	04/27/2004
			Field Sample ID	NF11409X	NF11110X	D0422101	NF11210X	NF11310X	NF11410X	NF11111X	NF11211X	NF11311X	NF11411X	NF11112X	NF11212X	NF12401	NF12102	NF12202	NF12302	NF12402	NF12103Y	NF12203Y	NF12303	NF12403	NF12204A	NF12304	NF13401	NF13102	NF13202	NF13302	NF13402Y	NF13103X	NF13203Y	NF13303	NF13403	NF13204A
			SDG	1167632	1181531	RFS39	RFS39	RFS59	RFS78	RFS94	RFT30	RFT40	RFT78	RFU06	RFU36		268868	279740	293320	GWC01	GWC02	GWC04	GWC06	GWC08	GWC10	GWC14		271965	279514	293541	GWC01	GWC02	GWC04	GWC05	GWC08	GWC10
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	0.8U	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	1.0U	-	-	-	0.9U	-	-	0.9U	-	-	-	1.0U	-	-	-	0.9U	-	-	0.9U
1,1,1-Trichloroethane	ug/L	N	30	-	-	0.8U	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-	-	1.0U	-	-	-	1U	-	-	1U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-	-	1.0U	-	-	-	1U	-	-	1U
1,1,2-Trichloroethane	ug/L	N	3	-	-	0.8U	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-	-	1.0U	-	-	-	1U	-	-	1U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	2U	2U	-	-	-	2U	-	-	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-	-	1.0U	-	-	-	1U	-	-	1U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	1U	1U	-	-	-	1U	-	-	-	1U	0.0009U	-	11.1U	-	0.3U	-	0.6U	-	0.3U	0.6U	-	0.0009U	-	10.0U	-	0.3U	-	0.3U	-	0.3U	0.3U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	2U	2U	-	-	-	2U	-	-	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	1U	1U	-	-	-	1U	-	-	-	1U	0.0008U	-	1.0U	-	0.3U	-	0.6U	-	0.3U	0.6U	-	0.0008U	-	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	1.0U	-	-	-	2U	-	-	1U	-	-	-	1.0U	-	-	-	2U	-	-	1U
1,2-Dichloropropane	ug/L	N	1	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-	-	1.0U	-	-	-	1U	-	-	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.1U	-	0.2U	-	0.4U	-	0.2U	0.4U	-	-	-	10.0U	-	0.2U	-	0.2U	-	0.2U	0.2U
1,3-Dichlorobenzene	ug/L	N	600	-	-	1U	1U	-	-	-	1U	-	-	-	1U	0.0008U	-	1.0U	-	0.3U	-	0.6U	-	0.3U	0.6U	-	0.0008U	-	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	1U	1U	-	-	-	1U	-	-	-	1U	0.0009U	-	1.0U	-	0.3U	-	0.6U	-	0.3U	0.6U	-	0.0009U	-	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	3U	3U	-	-	-	24	-	-	-	3U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	2U	-	-	-	-	-	-	-	2U	-	-	2U
2-Hexanone	ug/L	N	300	-	-	3U	3U	-	-	-	3U	-	-	-	3U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	3U	3U	-	-	-	3U	-	-	-	3U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	-	-	6U	6U	-	-	-	51	-	-	-	6U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0U	-	-	-	40U	-	-	10U	-	-	-	2.0U	-	-	-	40U	-	-	10U
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0U	-	-	-	10U	-	-	10U	-	-	-	2.0U	-	-	-	10U	-	-	10U
Benzene	ug/L	N	1	24	130	38	51	94	42	110	120	43	5J	0.6J	1J	0.00065U	1.00U	1.0U	1.00U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.00065U	5.00U	1.0U	1.00U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.1U	-	30U	-	60U	-	29U	60U	-	-	-	10.0U	-	29U	-	30U	-	29U	31U
Bromodichloromethane	ug/L	N	1	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	1.0U	-	-	-	0.7U	-	-	0.7U	-	-	-	1.0U	-	-	-	0.7U	-	-	0.7U
Bromoform	ug/L	N	4	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	1.0U	-	-	-	0.8U	-	-	0.8U	-	-	-	1.0U	-	-	-	0.8U	-	-	0.8U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	1.0U	-	-	-	2U	-	-	2U	-	-	-	1.0U	-	-	-	2U	-	-	2U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-	-	1.0U	-	-	-	1U	-	-	1U
Chlorobenzene	ug/L	N	50	-	-	0.8U	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	1.0U	-	-	-	0.8U	-	-	0.8U	-	-	-	1.0U	-	-	-	0.8U	-	-	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	1.0U	-	-	-	2U	-	-	2U	-	-	-	1.0U	-	-	-	2U	-	-	2U
Chloroform	ug/L	N	70	-	-	0.8U	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-	-	1.0U	-	-	-	1U	-	-	1U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	1.0U	-	-	-	2U	-	-	2U	-	-	-	1.0U	-	-	-	2U	-	-	2U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	0.8U	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	-	-	-	1U	-	-	1U	-	-	-	-	-	-	-	1U	-	-	1U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-	-	1.0U	-	-	-	1U	-	-	1U
Cyclohexane	ug/L	N	100	-	-	22	31	-	-	-	78	-	-	-	2J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-	-	1.0U	-	-	-	1U	-	-	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	2U	2U	-	-	-	2U	-	-	-	2U	-	-	1.0U	-	-	-	-	-	-	-	-	-	-	1.0U	-	-	-	-	-	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	8	76	16	22	32	12	35	30	8	2J	0.8U	2J	0.00073U	1.00U	1.0U	1.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.00073U	5.00U	1.0U	1.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	6	8	-	-	-	26	-	-	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	0.5U	0.5U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	11	16	-	-	-	43	-	-	-	1J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	2U	2U	-	-	-	2U	-	-	-	2U	-	-	2.0U	-	-	-	2U	-	-	2U	-	-	-	2.0U	-	-	-	2U	-	-	2U
Styrene	ug/L	N	100	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	0.8U	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-	-	1.0U	-	-	-	1U	-	-	1U
Toluene	ug/L	N	600	18	83	29	36	73	24	45	47	22	0.8J	0.7U	0.7U	0.00061U	1.00U	1.0U	1.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.00061U	5.00U	1.0U	1.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	0.8U	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	-	-	-	1U	-	-	1U	-	-	-	-	-	-	-	1U	-	-	1U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	1.0U	-	-	-	0.6U	-	-	0.6U	-	-	-	1.0U	-	-	-	0.6U	-	-	0.6U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	1.0U	-	-	-	1U	-	-	1U	-	-	-	1.0U	-	-	-	1U	-	-	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	2U	2U	-	-	-	2U	-	-	-	2U	-	-	1.0U	-	-	-	2U	-	-	2U	-	-	-	1.0U	-	-	-	2U	-	-	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	1U	1U	-	-	-	1U	-	-	-	1U	-	-	1.0U	-	-	-	2U	-	-	2U	-	-	-	1.0U	-	-	-	2U	-	-	2U
Xylene (total)	ug/L	N	1000	46	280	76	99	210	75	140	130	51	14	1J	4J	0.00061U	1.0U	1.0U	1.00U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.00061U	5.0U	1.0U	1.00U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13
			Sample Date	07/21/2004	12/14/2004	02/01/2005	05/04/2005	08/09/2005	10/06/2005	01/11/2006	04/18/2006	07/27/2006	10/06/2006	01/17/2007	04/26/2007	11/01/2007	01/08/2008	05/01/2008	07/11/2008	10/09/2008	01/21/2009	04/28/2009	08/06/2009	10/21/2009	02/04/2010	05/20/2010	07/23/2010	11/11/2010	03/09/2011	04/14/2011	07/08/2011	10/21/2011	01/24/2012	04/03/2012	07/11/2012
			Field Sample ID	NF13304	NF13404X	NF13105X	NF13205X	NF13305X	NF13405X	NF13106X	NF13206X	NF13306X	NF13406X	NF13107X	NF13207X	NF13407X	NF13108X	NF13208X	NF13308X	NF13408X	NF13109X	NF13209X	NF13309X	NF13409X	NF13110X	NF13210X-100520	NF13310X	NF13410X	NF13111X	NF13211X	NF13311X	NF13411X	NF13112X	NF13212X	NF13312X
			SDG	GWC14	GWC17	GWC18	942145	954690	962189	974020	986041	999108	1008884	1021982	1035529	1063753	1072349	1089148	1100292	1114369	1129030	1142383	1156644	1167395	1181531	RFS43	RFS57	RFS80	RFS97	RFT08	RFT40	RFT80	RFU02	RFU36	RFV06
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	0.3U	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	0.3U	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	0.2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	0.3U	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	0.3U	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-	-	-	3U	-
Acetone	ug/L	N	6000	-	-	-	6U	-	-	-	6U	-	-	-	6U	-	-	6U	-	-	-	6U	-	-	-	6U	-	-	-	6U	-	-	-	6U	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.9U	0.9U	0.9U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	29U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Bromoform	ug/L	N	4	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	1U	-	-	-	2J	-	-	-	1J	-	-	1U	-	-	-	1J	-	-	-	1J	-	-	-	2J	-	-	-	1U	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Chlorobenzene	ug/L	N	50	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Chloroform	ug/L	N	70	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Cyclohexane	ug/L	N	100	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
Dibromochloromethane	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	0.5U	-	-	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	0.5U	-	-	-	0.5U	-
Methylcyclohexane	ug/L	N	100	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
Styrene	ug/L	N	100	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
Toluene	ug/L	N	600	0.8U	0.8U	0.8U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-	-	-	0.8U	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-	-	-	2U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-	-	-	1U	-
Xylene (total)	ug/L	N	1000	0.9U	0.9U	0.9U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-14	NF-14	NF-14	NF-14	NF-14	NF-14	NF-14	NF-14	NF-14	NF-14	NF-15	NF-15	NF-15	NF-16	NF-16	NF-16	NF-16	NF-16	NF-16
			Sample Date	10/11/2012	01/29/2013	04/18/2013	07/18/2013	10/08/2013	02/27/2014	05/02/2014	07/25/2014	10/15/2014	01/23/2015	05/05/2015	08/11/2015	10/08/2015	10/10/2001	01/17/2002	04/09/2002	07/15/2002	10/11/2002	01/02/2003	04/23/2003	07/02/2003	10/02/2003	04/27/2004	07/21/2004	10/30/2002	02/13/2003	05/04/2004	10/05/2001	01/16/2002	04/10/2002	07/15/2002	10/11/2002	01/02/2003
			Field Sample ID	NF13412X	NF13113X	NF13213X	NF13313X	NF13413X	NF13114X	NF13214X	NF13314X	NF13414X	NF13115X	NF13215X	NF13315X	NF13415X	NF14401	NF14102	NF14202	NF14302	NF14402Y	NF14103Y	NF14203Y	NF14303	NF14403	NF14204A	NF14304	N015A2Y	N015A3Y	NF15204A	NF16401	NF16102X	NF16202	NF16302	NF16402Y	NF16103Y
			SDG	RFV63	RFX42	RFY95	RFB44	CS025	CS067	CS093	CS131	CS171	CS198	CS226	CS271	CS296		268291	279514	293060	GWC01	GWC02	GWC04	GWC05	GWC08	GWC10	GWC13	RFE35	RFE64	GWC10		268146	279740	293060	GWC01	GWC02
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	0.8U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	0.9U	-	-	0.9U	-	0.8U	0.8U	0.9U	-	-	1.0U	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	0.8U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-	0.8U	0.8U	1U	-	-	1.0U	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-	-	1.0U	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	0.8U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-	0.8U	0.8U	1U	-	-	1.0U	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	2U	-	-	-	2U	-	-	-	2UJ	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	1U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-	-	1.0U	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	1U	-	0.6U	-	1U	-	-	-	1UJ	-	-	0.0009U	-	10.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-	1U	1U	0.3U	0.9U	-	10.0U	-	0.3U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	2U	-	-	-	2U	-	-	-	2UJ	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	1U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	1U	-	0.6U	-	1U	-	-	-	1UJ	-	-	0.0008U	-	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-	1U	1U	0.3U	0.8U	-	1.0U	-	0.3U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	1U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	2U	-	-	1U	-	1U	1U	1U	-	-	1.0U	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-	-	1.0U	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	0.6U	-	-	-	-	-	-	-	-	-	-	10.0U	-	0.2U	-	0.2U	-	0.2U	0.2U	-	-	-	0.2U	-	-	10.0U	-	0.2U	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	1U	-	0.6U	-	1U	-	-	-	1UJ	-	-	0.0008U	-	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-	1U	1U	0.3U	0.8U	-	1.0U	-	0.3U	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	1U	-	0.6U	-	1U	-	-	-	1UJ	-	-	0.0009U	-	1.0U	-	0.3U	-	0.3U	-	0.3U	0.3U	-	1U	1U	0.3U	0.9U	-	1.0U	-	0.3U	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	3U	-	-	-	3U	-	-	-	3UJ	-	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	-	-	2U	-	-	-	2U	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	3U	-	-	-	3U	-	-	-	3UJ	-	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	-	-	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	3U	-	-	-	3U	-	-	-	3UJ	-	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	-	-	-	-	-	-	-
Acetone	ug/L	N	6000	-	-	6U	-	-	-	6U	-	-	-	6UJ	-	-	-	-	-	-	-	-	-	-	-	-	-	6U	6U	-	-	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0U	-	-	-	40U	-	-	10U	-	-	-	10U	-	-	2.0U	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0U	-	-	-	10U	-	-	10U	-	-	-	10U	-	-	2.0U	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	1U	0.5U	0.00065U	1.00U	1.0U	1.00U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.5U	0.5U	0.9U	0.65U	1.00U	1.0U	1.00U	0.9U	0.9U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	22U	-	-	-	-	-	-	-	-	-	-	10.0U	-	28U	-	32U	-	31U	32U	-	-	-	29U	-	-	10.0U	-	29U	-
Bromodichloromethane	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	0.7U	-	-	0.7U	-	1U	1U	0.7U	-	-	1.0U	-	-	-
Bromoform	ug/L	N	4	-	-	1U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	0.8U	-	-	0.8U	-	1U	1U	0.8U	-	-	1.0U	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	1U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	2U	-	-	2U	-	1U	1U	2U	-	-	1.0U	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	1J	-	-	-	1U	-	-	-	2J	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-	-	1.0U	-	-	-
Chlorobenzene	ug/L	N	50	-	-	0.8U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	0.8U	-	-	0.8U	-	0.8U	0.8U	0.8U	-	-	1.0U	-	-	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	1U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	2U	-	-	2U	-	1U	1U	2U	-	-	1.0U	-	-	-
Chloroform	ug/L	N	70	-	-	0.8U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-	0.8U	0.8U	1U	-	-	1.0U	-	-	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	1U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	2U	-	-	2U	-	1U	1U	2U	-	-	1.0U	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	0.8U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	-	-	-	-	1U	-	-	1U	-	0.8U	0.8U	1U	-	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-	-	1.0U	-	-	-
Cyclohexane	ug/L	N	100	-	-	2U	-	-	-	2U	-	-	-	2UJ	-	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-	-	1.0U	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	2U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	-	-	-	-	-	2U	2U	-	-	-	1.0U	-	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5UJ	1U	0.5U	0.00073U	1.00U	1.0U	1.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.73U	1.00U	1.0U	1.00U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	1U	-	-	-	1U	-	-	-	1UJ	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	1U	-	-	-	1U	-	-	-	1UJ	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	0.5U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	-	-	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	1U	-	-	-	1U	-	-	-	1UJ	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	2U	-	-	-	2U	-	-	-	2UJ	-	-	-	-	2.0U	-	-	-	2U	-	-	2U	-	2U	2U	2U	-	-	2.0U	-	-	-
Styrene	ug/L	N	100	-	-	1U	-	-	-	1U	-	-	-	1UJ	-	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	0.8U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-	0.8U	0.8U	1U	-	-	1.0U	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	1U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5UJ	1U	0.5U	0.00061U	1.00U	1.0U	1.00U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.7U	0.7U	0.8U	0.61U	1.00U	1.0U	1.00U	0.8U	0.8U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	0.8U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	-	-	-	-	1U	-	-	1U	-	0.8U	0.8U	1U	-	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	0.6U	-	-	0.6U	-	1U	1U	0.6U	-	-	1.0U	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	1U	-	-	1U	-	1U	1U	1U	-	-	1.0U	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	2U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	2U	-	-	2U	-	2U	2U	2U	-	-	1.0U	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	1U	-	-	-	0.5U	-	-	-	0.5UJ	-	-	-	-	1.0U	-	-	-	2U	-	-	2U	-	1U	1U	2U	-	-	1.0U	-	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	2U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5UJ	1U	0.5U	-	1.0U	1.0U	1.00U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.8U	0.8U	0.9U	0.61U	1.0U	1.0U	1.00U	0.9U	0.9U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-16	NF-16	NF-16	NF-16	NF-17	NF-5B	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-10	P-10	P-10	P-10
			Sample Date	04/23/2003	07/11/2003	10/08/2003	05/04/2004	10/11/2001	09/22/1997	11/15/2005	06/02/2006	12/01/2006	06/12/2007	12/13/2007	08/22/2008	11/04/2008	07/10/2009	11/12/2009	06/29/2010	09/29/2010	06/07/2011	11/15/2011	03/09/2012	08/09/2012	04/05/2013	09/25/2013	06/24/2014	11/14/2014	06/30/2015	10/17/2017	10/17/2017	12/11/2017	07/29/2008	11/04/2008	07/09/2009	11/05/2009
			Field Sample ID	NF16203Y	NF16303	NF16403	NF16204A	NF17401	NF-5B-A1	P001A2X	P001A3X	P001A4X	P001A5X	P001A6X	P001A7X	P001A8X	P001A9X	P001B1X	P001B2X-100629	P001B3X	P001B4X	P001B5X	P001B6X	P001B7X	P001B8X	P001B9X	P001C1X	P001C2X	P001C3X	D1017178A	P001C8X	P001C9X	P010A1X	P010A2X	P010A3X	P010A4X
			SDG	GWC04	GWC05	GWC08	GWC10		74432	967531	991967	1016343	1042260	1069704	1106759	1118353	1153027	1170880	RFS51	RFS69	RFT29	RFT86	RFU16	RFV27	RFY57	CS015	CS116	CS186	CS256	CQ820	CQ820	CQ923	1102860	1118353	1152857	1169793
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.9U	-	-	0.9U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	1U	-	-	1U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	1U	-	-	1U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	0.3U	-	0.3U	0.3U	0.0009U	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	0.52U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	0.3U	-	0.3U	0.3U	0.0008U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	2U	-	-	1U	-	2U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	0.2U	-	0.2U	0.2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	0.3U	-	0.3U	0.3U	0.0008U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	0.3U	-	0.3U	0.3U	0.0009U	10U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	10U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	2U	-	-	2U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3UJ	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-	-	-
Acetone	ug/L	N	6000	-	-	-	-	-	-	6U	8J	8J	6U	6U	7J	6U	6J	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	6U	-	-	-	-
Acrolein	ug/L	N	NS	40U	-	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	10U	-	-	10U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.9U	0.9U	0.9U	0.9U	2.000	1U	2J	2J	2J	2J	1J	1J	1J	1J	0.6J	1J	2J	1J	0.9J	0.8J	0.9J	0.5U	0.9J	0.5U	0.5J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	32U	-	31U	28U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.7U	-	-	0.7U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Bromoform	ug/L	N	4	0.8U	-	-	0.8U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	2U	-	-	2U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	5U	1U	1U	1U	1U	1U	1U	1U	2J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	-	-	0.8U	-	4U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	2U	-	-	2U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Chloroform	ug/L	N	70	1U	-	-	1U	-	5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	2U	-	-	2U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	1U	-	-	1U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	11	8	8	6	13	6	10	4J	4J	5J	9	5	4J	4J	4J	2U	3J	2U	2J	2U	2U	2U	2U	-	-	-	-
Dibromochloromethane	ug/L	N	1	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5UJ	0.5UJ	0.5U	-	-	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.00073U	5U	3J	2J	5	2J	2J	1J	1J	1J	0.8U	0.8U	2J	1J	0.9J	0.8U	0.8U	0.8U	0.8U	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	5J	6	6	3J	6	5J	4J	6	4J	3J	7	4J	4J	4J	3J	1U	3J	1U	2J	1U	1U	1U	1U	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	12	10	12	8	13	6	8	1J	1J	2J	6	3J	4J	3J	3J	1U	1J	1U	2J	1U	1U	1U	1U	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	-	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	-	-	-	-
Styrene	ug/L	N	100	-	-	-	-	-	5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-	-	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	1U	-	-	1U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Toluene	ug/L	N	600	0.8U	0.8U	0.8U	0.8U	0.00061U	5U	0.8J	0.7U	1J	0.7U	0.7U	0.7U	0.7U	0.9J	0.7U	1J	1J	0.8J	0.8J	0.7U	1J	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7U	2J	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	1U	-	-	1U	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	0.6U	-	-	0.6U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	-	-	1U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	-	-	2U	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	2U	-	-	2U	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	-	-
Xylene (total)	ug/L	N	1000	0.9U	0.9U	0.9U	0.9U	3.000	5U	14	9	17	6	5	4J	5	2J	1J	5J	7	4J	6	3J	4J	0.8U	3J	0.5U	4	0.5U	0.5U	0.5U	1	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	110	120	150	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	P-10	P-10	P-10	P-10	P-10	P-10	P-10	P-10	P-10	P-10	P-10	P-10	P-2	P-2	P-4	P-4	P-5	P-5	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6
			Sample Date	06/29/2010	09/29/2010	07/26/2011	11/10/2011	02/28/2012	08/16/2012	08/16/2012	03/19/2013	09/25/2013	05/30/2014	12/12/2014	06/26/2015	12/04/2002	04/10/2003	10/16/2002	02/04/2003	10/17/2002	02/05/2003	10/22/2002	02/24/2003	07/29/2008	11/11/2008	06/03/2009	11/20/2009	04/29/2010	09/21/2010	06/23/2011	11/22/2011	03/28/2012	08/16/2012	02/27/2013	09/26/2013	03/28/2014
			Field Sample ID	P010A5X-100629	P010A6X	P010A7X	P010A8X	P010A9X	D0816121	P010B1X	P010B2X	P010B3X	P010B4X	P010B5X	P010B6	P002A1Z	P002A2Y	P004A1Y	P004A2X	P005A1Y	P005A2Y	P006A1Y	P006A2Y	P006A3X	P006A4X	P006A5X	P006A6X	P006A7X	P006A8X	P006B1X	P006B2X	P006B3X	P006B4X	P006B5X	P006B6X	P006B8X
			SDG	RFS51	RFS69	RFT46	RFT85	RFU13	RFV29	RFV29	RFY13	CS015	CS107	CS192	CS255	RFE43	RFE70	RFE33	RFE62	RFE33	RFE62	RFE34	RFE65	1102860	1119533	1147599	1172227	RFS40	RFS68	RFT36	RFT88	RFU32	RFV29	RFX80	CS016	CS078
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	6J	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	-	-	-	-	23	17J	6U	8J	6U	6U	6U	6U	6U	6U	6U	6U	8J	6U	6U	6U	16J	6U	6U	6U	6U
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	3J	3J	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.6J	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	P-6	P-6	P-6	P-6	P-6	P-6	P14TP1R	P14TP1R	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-11	RW-11	RW-11
			Sample Date	11/12/2014	06/26/2015	03/15/2016	09/01/2016	03/28/2017	09/06/2017	06/17/2016	06/07/2017	09/16/2003	09/22/2004	05/27/2005	10/26/2005	05/25/2006	12/01/2006	05/15/2007	08/13/2008	05/27/2009	06/23/2011	03/15/2012	02/26/2013	04/30/2013	06/19/2013	03/12/2014	03/12/2014	06/30/2014	07/31/2014	09/10/2014	01/19/2015	07/07/2015	11/29/2017	06/15/2005	11/16/2005	06/27/2006
			Field Sample ID	P006B9X	P006C1X	P006C2X	P006C3X	P006C4X	P006C5X	P14TP1RB1	P14TP1RB2	RW02A1	RW02A2X	R002A3X	R002A4X	R002A5X	R002A6X	R002A7X	R002A8X	R002A9X	R002B1X	R002B2X	R002B3X	R002B4X	R002B5X	D0312148	R002B6X	R002B7X	R002B8X	R002B9X	R002C1X	R002C2X	R002C9X	R011A1X	R011A2X	R011A3X
			SDG	CS184	CS255	CS373	CS448	CS532	CS599	CS419	CS568	RFE86	RFF25	RFF56	964862	991108	1016343	1038388	1105279	1146548	RFT36	RFU22	RFX79	RFZ24	CP008	CP275	CP275	CP392	CP438	CS155	CP647	CP770	CQ908	947574	967750	995245
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	5U	5U	3U	0.5U	1UJ	0.8U	0.8U	0.8U
1,1,1-Trichloroethane	ug/L	N	30	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	5U	5U	3U	0.5U	1UJ	0.8U	0.8U	0.8U
1,1,2,2-Tetrachloroethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	5U	5U	3U	0.5U	1UJ	1U	1U	1U
1,1,2-Trichloroethane	ug/L	N	3	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	5U	5U	3U	0.5U	1UJ	0.8U	0.8U	0.8U
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2UJ	2U	2U	2U	2U	20U	20U	10U	2U	4UJ	2U	2U	2U
1,1-Dichloroethane	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	5U	5U	3U	0.5U	1UJ	1U	1U	1U
1,2,4-Trichlorobenzene	ug/L	N	9	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	10U	5UJ	1U	2UJ	1U	1U	1U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	20U	10U	2U	4UJ	2U	2U	2U
1,2-Dibromoethane	ug/L	N	0	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	5U	5U	3U	0.5U	1UJ	1U	1U	1U
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	10U	5U	1U	2UJ	1U	1U	1U
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	5U	5U	3U	0.5U	1UJ	1U	1U	1U
1,2-Dichloropropane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	5U	5U	3U	0.5U	1UJ	1U	1U	1U
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	10U	5U	1U	2UJ	1U	1U	1U
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	10U	5U	1U	2UJ	1U	1U	1U
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	3U	3U	3U	3U	3U	4J	3U	3U	34	7J	9J	14	3U	50	12	9J	3J	8J	7J	5J	9J	3U	3J	3U	30U	30U	17J	3U	6UJ	3U	3U	3U
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U	30U	15U	3U	6UJ	3U	3U	3U
4-Methyl-2-pentanone	ug/L	N	100	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	30U	30U	15U	3U	6UJ	3U	3U	3U
Acetone	ug/L	N	6000	6U	6U	6U	6U	6U	6U	14J	17J	6U	60	16J	18J	27	9J	96	36	26	10J	11J	13J	9J	19J	6U	6J	6U	84J	130J	83J	6U	12UJ	14J	11J	8J
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	16	4	110	130	100	88	120	100	190	200	170	210	61	41	89	93	34	33	25	60	100	68	53	86J	0.5J	6	1J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	5U	5U	3U	0.5U	1UJ	1U	1U	1U
Bromoform	ug/L	N	4	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	5U	5U	3U	0.5U	1UJ	1U	1U	1U
Bromomethane (Methyl bromide)	ug/L	N	10	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	0.5U	5U	5U	3U	0.5U	1UJ	1U	1U	1U
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	17J	6J	1U	2UJ	1U	1U	1U
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	5U	5U	3U	0.5U	1UJ	1U	1U	1U
Chlorobenzene	ug/L	N	50	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	5U	5U	3U	0.5U	1UJ	0.8U	0.8U	0.8U
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1UJ	1U	1U	0.5U	5U	5U	3U	0.5U	1UJ	1U	1U	1U
Chloroform	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	5U	5U	3U	0.5U	1UJ	0.8U	0.8U	0.8U
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	5U	5U	3U	0.5U	1UJ	1U	1U	1U
cis-1,2-Dichloroethene	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	5U	5U	3U	0.5U	1UJ	0.8U	0.8U	0.8U
cis-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	5U	5U	3U	0.5U	1UJ	1U	1U	1U
Cyclohexane	ug/L	N	100	2U	2U	2U	2UJ	2U	2U	11	11	180	110	130	60	86	57	120	130	89	82	18	44	30	29	25	24	3J	20U	20U	11J	6	10J	3J	3J	4J
Dibromochloromethane	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	5U	5U	3U	0.5U	1UJ	1U	1U	1U
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	5U	5U	3U	0.5U	1UJ	2U	2U	2U
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	3	2	73	29	16	48	18	53	47	20	19	25	4J	6	10	9	2J	2J	1	5U	7J	5	1	4J	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	1U	1U	1U	1U	1U	54	55	42	28	28	22	26	28	32	31	26	13	9	15	16	15	1U	1U	1U	10U	10U	6J	5J	17J	1U	1U	1U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	10U	5U	1U	2UJ	1U	1U	1U
Methyl-t-butyl ether	ug/L	N	70	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1	2	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5U	5U	3U	0.5U	1UJ	0.5U	0.5U	0.5U
Methylcyclohexane	ug/L	N	100	1U	1U	1U	1U	1U	1U	180	230	270	150	170	120	85	92	150	130	77	49	13	21	26	25	13	13	3J	10U	10U	6J	2J	8J	1J	1J	2J
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	20U	20U	10U	2U	1UJ	2U	2U	2U
Styrene	ug/L	N	100	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	10U	10U	5U	1U	2UJ	1U	1U	1U
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	5U	5U	3U	0.5U	1UJ	0.8U	0.8U	0.8U
Toluene	ug/L	N	600	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	6	5	19	15	10	14	11	12	21	22	18	29	4J	6	12	9	2J	2J	1	5U	5J	3J	0.5J	7J	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	5U	5U	3U	0.5U	1UJ	0.8U	0.8U	0.8U
trans-1,3-Dichloropropene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	5U	5U	3U	0.5U	1UJ	1U	1U	1U
Trichloroethene (Trichloroethylene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	5U	5U	3U	0.5U	1UJ	1U	1U	1U
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	0.5U	5U	5U	3U	0.5U	1UJ	2U	2U	2U
Vinyl chloride (Chloroethene)	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5U	5U	5U	3U	0.5U	1UJ	1U	1U	1U
Xylene (total)	ug/L	N	1000	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	12	15	40	25	19	21	17	29	33	34	29	35	4J	14	16	14	2J	2J	0.8J	5U	6J	5J	0.9J	14J	3J	4J	4J
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1700	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2400	2000J+	860	710J+	-	690J	-	1200J+	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31
			Sample Date	11/28/2006	05/31/2007	08/01/2008	06/24/2009	06/29/2010	06/03/2011	02/14/2012	04/09/2013	06/03/2014	06/02/2016	05/10/2017	06/07/2005	11/15/2005	06/23/2006	12/08/2006	05/23/2007	08/15/2008	07/16/2009	06/18/2010	07/28/2011	03/28/2012	04/11/2013	12/10/2015	06/02/2016	06/09/2017	06/16/2005	11/18/2005	06/13/2006	12/05/2006	06/15/2007	08/15/2008	06/26/2009
			Field Sample ID	R011A4X	R011A5X	R011A6X	R011A7X	R011A8X-100629	R011A9X	R011B1X	R011B2X	R011B3X	R011B4	R011B5X	R021A3X	R021A4X	R021A5X	R021A6X	R021A7X	R021A8X	R021A9X	R021B1X-100618	R021B2X	R021B3X	R021B4X	R021B6X	R021B7	R021B8	R031A1X	R031A2X	R031A3X	R031A4X	R031A5X	R031A6X	R031A7X
			SDG	1015744	1040574	1103488	1150741	RFS51	RFT27	RFU10	RFY63	CS108	CS409	CS557	RFF58	967531	994921	1017481	1039652	1105739	1153802	RFS47	RFT48	RFU32	RFY73	CS327	CS409	CS570	947746	968194	993388	1016740	1042931	1105739	1151128
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-
1,1-Dichloroethane	ug/L	N	50	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-
1,2-Dibromoethane	ug/L	N	0	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
1,2-Dichloropropane	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	5J	3U	3U	3U	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-
Acetone	ug/L	N	6000	6U	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	7J	-	-	-	-	-	-	-	-	-	-	9J	6U	6U	6U	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.8J	1J	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4J	9	3J	7	5	4J	2J	2J	3J	2J	5J	0.9J	0.9J	1J	0.6J	0.5U	0.6J	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Bromoform	ug/L	N	4	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Chlorobenzene	ug/L	N	50	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Chloroform	ug/L	N	70	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Cyclohexane	ug/L	N	100	4J	-	-	-	-	-	-	-	-	-	-	16	68	15	58	-	-	-	-	-	-	-	-	-	-	4J	8	7	10	-	-	-
Dibromochloromethane	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	9	13	7	9	11	14	10	6	14	3J	17	2	9	2	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	1U	-	-	-	-	-	-	-	-	-	-	6	11	6	17	-	-	-	-	-	-	-	-	-	-	2J	9	4J	2J	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Methyl-t-butyl ether	ug/L	N	70	0.5U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	-	-	-
Methylcyclohexane	ug/L	N	100	2J	-	-	-	-	-	-	-	-	-	-	7	26	9	21	-	-	-	-	-	-	-	-	-	-	12	21	28	25	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-
Styrene	ug/L	N	100	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	8	14	10	13	16	33	26	26	46	15	21	5	7	8	1J	0.7U	1J	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-
Xylene (total)	ug/L	N	1000	4J	4J	6	4J	3J	2J	3J	0.9J	2	0.5U	0.5U	140	300	140	330	250	320	280	200	330	120	290	94	130	45	2J	0.8U	3J	3J	2J	3J	2J
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34
			Sample Date	07/01/2010	08/04/2011	02/29/2012	03/19/2013	09/03/2014	12/30/2015	06/01/2016	05/04/2017	06/16/2005	11/18/2005	06/09/2006	12/05/2006	06/15/2007	08/22/2008	06/16/2009	06/04/2010	06/30/2011	02/29/2012	03/19/2013	09/03/2014	12/30/2015	06/02/2016	05/04/2017	06/15/2005	11/18/2005	06/13/2006	06/13/2006	06/15/2007	08/13/2008	06/16/2009	06/04/2010	08/18/2011
			Field Sample ID	R031A8X-100701	R031A9X	R031B1X	R031B2X	R031B3X	R031B4X	R031B5	R031B6	R033A1X	R033A2X	R033A3X	R033A4X	R033A5X	R033A6X	R033A7X	R033A8X-100604	R033A9X	R033B1X	R033B2X	R033B3X	R033B4X	R033B5X	R033B6X	R034A1X	R034A2X	R034A3X	R034A3X	R034A5X	R034A6X	R034A7X	R034A8X-100604	R034A9X
			SDG	RFS51	RFT50	RFU14	RFY13	CS150	CS334	CS408	CS555	947746	968194	993031	1016740	1042931	1106759	1149447	RFS46	RFT38	RFU14	RFY13	CS150	CS334	CS409	CS555	947574	968194	1016155	993388	1042931	1105279	1149447	RFS46	RFT60
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	-	2U	4U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	-	2U	4U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	-	3U	6U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	-	3U	6U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	-	3U	6U	3U	3U	-	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	-	-	-	-	-
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	-	18J	14J	37	21	-	-	-	-	-	-	-	-	-	-	-	6U	6U	6U	6U	-	-	-	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.6J	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	1J	1U	0.5U	0.5U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.7J	0.5U	0.5U	0.5U	1J	1J	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	-	1U	2U	1J	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	28	18	14	24	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	-	2U	4U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	2U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	-	-	9	7J	15	18	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	-	0.5U	1U	0.5U	0.5U	-	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	-	-	-	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	-	-	44	33	36	59	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	-	2U	4U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-
Styrene	ug/L	N	100	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.7J	0.7U	0.5U	0.5U	0.5U	0.5U	0.7U	1U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U	0.7U
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	-	0.8U	2U	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	-	0.8U	0.8U	0.8U	0.8U	-	-	-	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	-	2U	4U	2U	2U	-	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	-	-	-	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	-	1U	2U	1U	1U	-	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	-	-	-	-	-
Xylene (total)	ug/L	N	1000	2J	0.8J	2J	2J	0.5J	0.5U	0.5U	0.5U	2J	2U	1J	0.8U	1J	0.8U	0.8U	0.8U	0.9J	0.8U	0.8U	0.5U	0.5U	0.5U	0.6J	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

Appendix A3 Main Yard
Historical Groundwater VOC Concentration Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-41	RW-41	RW-41	RW-41	RW-41	RW-41	RW-41	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42
			Sample Date	02/21/2012	03/19/2013	09/03/2014	12/30/2015	06/01/2016	05/04/2017	06/23/2006	12/07/2006	06/15/2007	08/19/2008	07/09/2009	07/01/2010	06/30/2011	02/21/2012	06/27/2013	09/03/2014	06/16/2016	05/16/2017	08/16/2013	09/11/2014	12/10/2015	12/30/2015	06/01/2016	07/21/2016	05/04/2017	11/04/2002	09/29/2004	06/01/2005	11/16/2005	06/15/2006	12/07/2006	06/12/2007	08/19/2008
			Field Sample ID	R034B1X	R034B2X	R034B3X	R034B4X	R034B5	R034B6	R035A1X	R035A2X	R035A3X	R035A4X	R035A5X	R035A6X-100701	R035A7X	R035A8X	R035A9X	R035B1X	R035B2	R035B3	R041A1	R041A2X	R041A3X	R041A4X	R041A5	R041A6X	R041A7	RW42A1	RW42A2X	R042A3	R042A4X	R042A5X	R042A6X	R042A7X	R042A8X
			SDG	RFU12	RFY13	CS150	CS334	CS408	CS555	994921	1017222	1042931	1106131	1152857	RFS51	RFT38	RFU12	RFB21	CS150	CS418	CS560	CP076	CS154	CP959	CS334	CS408	CQ191	CS555	LNA05	RFF26	RFF57	967750	993798	1017222	1042260	1106131
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1UJ	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2UJ	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	4J	7J	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	4J	3U	3U	3U	4J	8J	3U	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	3U	-	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	3U	3U	-	-	-	-	-	-	-	-	-	-	3U	3U	3U	3U	3U	3U	3J	3U	3U	3U	3U	3U	3U	-	-
Acetone	ug/L	N	6000	-	-	-	-	-	-	20J	33	-	-	-	-	-	-	-	-	-	-	6U	6U	9J	6U	6U	6U	15J	15J	14J	6U	9J	10J	6U	-	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	210	58	160	79	31	65	6	13	45	49	24	7	0.5U	2	0.5U	0.5U	0.9J	0.7J	0.5U	2J	0.5U	90	200	220	92	3J	17
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Bromoform	ug/L	N	4	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37000	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	2J	1U	-	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Chloroform	ug/L	N	70	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	-	360	490	-	-	-	-	-	-	-	-	-	-	3J	2U	4J	3J	6	4J	5J	8	2U	16	12	11	17	-	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	-	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	13	14	14	12	8	9	1J	3J	3J	5	0.5U	0.5U	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	7	3J	4J	5J	0.8J	4J
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	-	22	52	-	-	-	-	-	-	-	-	-	-	6	8	7	3J	5	6	3J	1U	1U	3J	1J	1J	1J	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12000	-	-	-	-	-	-	7200	-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	0.5J	0.5J	-	-	-	-	-	-	-	-	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8J	0.5U	0.5U	0.5U	0.5U	0.5U	-	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	-	300	340	-	-	-	-	-	-	-	-	-	-	29	200	64	60	120	67	93	5J	1U	5J	8	6	9	-	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	-	-
Styrene	ug/L	N	100	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	-	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
Toluene	ug/L	N	600	0.7U	0.7U	0.5U	0.5U	0.5U	0.5U	18	30	26	14	24	19	3J	11	2J	10	2	2	0.7U	1J	0.5U	0.5U	0.5U	0.5U	0.5U	0.9J	0.7U	72	39	29	61	5J	51
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	0.8U	0.8U	-	-	-	-	-	-	-	-	-	-	0.8U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.8U	0.8U	0.8U	0.8U	0.8U	0.8U	-	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	2U	2U	-	-	-	-	-	-	-	-	-	-	2U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2U	2U	2U	2U	2U	2U	-	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	1U	1U	-	-	-	-	-	-	-	-	-	-	1U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	1U	1U	1U	1U	1U	-	-
Xylene (total)	ug/L	N	1000	0.8U	0.8U	0.5U	0.5U	0.5U	0.5U	190	260	240	240	260	300	54	64	12	160	15	6	2J	4	4	3	3	3	2	5	0.8U	250	100	100	170	19	160
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	900	-	-	1000	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	710	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

			Location ID	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42
			Sample Date	06/17/2009	06/15/2010	05/19/2011	02/28/2012	03/21/2013	08/12/2013	09/04/2014	12/04/2015	12/04/2015	06/10/2016	07/29/2016	05/11/2017
			Field Sample ID	R042A9X	R042B1X-100615	R042B2X	R042B3X	R042B4X	R042B5	R042B6X	D1204158	R042B7X	R042B8X	R042B9X	R042C2X
			SDG	1149895	RFS47	RFT23	RFU13	RFY20	CP068	CS151	CP946	CP946	CS414	CQ207	CS558
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**CMI GW Action Limit**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
1,1 Dichloroethene	ug/L	N	1	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
1,1,1-Trichloroethane	ug/L	N	30	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
1,1,2,2-Tetrachloroethane	ug/L	N	1	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
1,1,2-Trichloroethane	ug/L	N	3	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
1,1,2-Trichlorotrifluoroethane (Freon 113)	ug/L	N	100	-	-	-	-	-	-	-	2U	2U	-	2U	-
1,1-Dichloroethane	ug/L	N	50	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
1,2,4-Trichlorobenzene	ug/L	N	9	-	-	-	-	-	-	-	1U	1U	-	1U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	N	0	-	-	-	-	-	-	-	2U	2U	-	2U	-
1,2-Dibromoethane	ug/L	N	0	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
1,2-Dibromoethane	ug/L	Y	0	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	N	600	-	-	-	-	-	-	-	1U	1U	-	1U	-
1,2-Dichlorobenzene (o-Dichlorobenzene)	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	N	2	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
1,2-Dichloropropane	ug/L	N	1	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
1,2-Diphenylhydrazine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	N	600	-	-	-	-	-	-	-	1U	1U	-	1U	-
1,3-Dichlorobenzene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	ug/L	N	75	-	-	-	-	-	-	-	1U	1U	-	1U	-
1,4-Dichlorobenzene	ug/L	Y	75	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone)	ug/L	N	300	-	-	-	-	-	-	-	3U	3U	-	3U	-
2-Butanone (Methyl ethyl ketone)	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloroethyl vinyl ether	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
2-Hexanone	ug/L	N	300	-	-	-	-	-	-	-	3U	3U	-	3UJ	-
4-Methyl-2-pentanone	ug/L	N	100	-	-	-	-	-	-	-	3U	3U	-	3UJ	-
Acetone	ug/L	N	6000	-	-	-	-	-	-	-	6U	6U	-	6U	-
Acrolein	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	32	3J	0.5J	8	230	38J-	5	0.5U	0.5U	1	0.5U	83
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Benzidine	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	ug/L	N	1	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Bromoform	ug/L	N	4	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Bromomethane (Methyl bromide)	ug/L	N	10	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Carbon Dioxide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	ug/L	N	700	-	-	-	-	-	-	-	1U	1U	-	1U	-
Carbon disulfide	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	ug/L	N	1	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Chlorobenzene	ug/L	N	50	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Chlorobenzene	ug/L	Y	50	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	N	5	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Chloroform	ug/L	N	70	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Chloroform	ug/L	Y	70	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	ug/L	N	NS	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
cis-1,2-Dichloroethene	ug/L	N	70	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
cis-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Cyclohexane	ug/L	N	100	-	-	-	-	-	18J-	-	2J	2J	-	2U	-
Dibromochloromethane	ug/L	N	1	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Dichlorodifluoromethane (Freon 12)	ug/L	N	1000	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Ethane	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethene	ug/L	N	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	N	700	2J	0.8U	0.8U	0.8U	2J	3J-	2	0.5U	0.5U	0.5U	0.5U	0.5U
Ethylbenzene	ug/L	Y	700	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	ug/L	N	700	-	-	-	-	-	1J-	-	1U	1U	-	1U	-
Methane	ug/L	N	NS	-	-	-	-	-	7800J-	-	-	-	-	-	-
Methyl acetate	ug/L	N	7000	-	-	-	-	-	-	-	1U	1U	-	1U	-
Methyl-t-butyl ether	ug/L	N	70	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Methylcyclohexane	ug/L	N	100	-	-	-	-	-	10J-	-	1U	1U	-	1U	-
Methylene chloride (Dichloromethane)	ug/L	N	3	-	-	-	-	-	-	-	2U	2U	-	2U	-
Styrene	ug/L	N	100	-	-	-	-	-	-	-	1U	1U	-	1U	-
Styrene	ug/L	Y	100	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	N	1	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Toluene	ug/L	N	600	22	5	6	15	23	31J-	34	1	2	2	0.5U	2
Toluene	ug/L	Y	600	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	ug/L	N	100	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
trans-1,3-Dichloropropene	ug/L	N	1	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Trichloroethene (Trichloroethylene)	ug/L	N	1	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Trichlorofluoromethane (Freon 11)	ug/L	N	2000	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Vinyl chloride (Chloroethene)	ug/L	N	1	-	-	-	-	-	-	-	0.5U	0.5U	-	0.5U	-
Xylene (total)	ug/L	N	1000	80	30	16	49	36	72J-	77	12	15	11	0.5U	4
Xylene (total)	ug/L	Y	1000	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Hydrocarbons (C6-C10)-GRO	ug/L	N	NS	-	-	-	-	-	-	-	98	120	-	20U	-
Petroleum Hydrocarbons, Gasoline	ug/L	N	NS	-	-	-	-	-	480J-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Bold, Shaded and Brackets Indicates Exceedance to Criteria
3. NA - No Criterion Available for the Analyte
4. NJDEP Approved Site Cleanup Critera

APPENDIX B

Groundwater Geochemistry

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0037R	MW-0037R	MW-0037RR	MW-0037RR	MW-0037RR	MW-0037RR	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044
			Sample Date	08/20/2013	08/20/2014	11/14/2017	02/08/2018	02/08/2018	04/30/2018	08/25/1998	10/21/2002	10/22/2002	03/06/2003	03/06/2003	02/19/2004	07/07/2004
			Field Sample ID	M037RA1	M037RA2X	M037RRA8X	D0208188	M037RRA9X	M037RRB1X	M044A1Z	M044A1X	M044A1Y	M044A2Y	M044A2Y	M044A3	M044A4
			SDG	CP079	CS143	CQ885	CQ969	CQ969	CR043	E38568	RFE34	RFE34	RFE66	RFE67	RFE97	RFF16
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.77	9.13	6.65	-	-	-	-	-	-	-	-	8.84	8.41
DO	mg/L	N	NS	0.02	-	4.41	-	-	-	-	6.08	-	10.22	10.22	19.99	6.15
ORP	millivolts	N	NS	-78.4	-	-189.1	-	-	-	-	100	-	121	121	149	138
pH	pH Units	N	NS	6.70	-	7.53	-	-	-	-	-	-	-	-	6.32	6.56
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	47000	-	-	-	51400
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	410U	-	410U	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	548000	-	-	-	-	-	-	-	47000	-	26000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	548000	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	2.8	-	-	-	-	-	5.0U	4.9U	-	4.9U	-	4.9U	4.7U
Arsenic	ug/L	Y	3	0.50J	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.6J	1	2	3	3	3	-	-	0.5U	-	0.5U	3U	0.5U
Iron	ug/L	N	300	8450	-	-	-	-	-	-	686	-	5000	-	3130	7110
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	3500	-	-	-	-	-	-	-	-	-	-	-	18
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	-	-	-	-	40U	-	-	150	890
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	323000	-	-	-	-	-	-	-	161000	-	29100	-	43900
Sulfide	ug/L	N	NS	700J	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044
			Sample Date	10/18/2004	10/19/2004	01/04/2005	01/05/2005	05/18/2005	05/19/2005	07/25/2005	07/26/2005	11/28/2005	11/29/2005	02/08/2006	02/09/2006	04/27/2006	04/28/2006
			Field Sample ID	M044A5	M044A5X	M044A6	M044A6X	M044A7	M044A7X	M044A8	M044A8X	M044A9	M044A9X	M044B1	M044B1X	M044B2	M044B2X
			SDG	RFF30	RFF30	RFF35	RFF35	RFF54	RFF53	952791	952791	969074	969074	977634	977634	987510	987510
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.75	-	-	-	9	-	7.85	-	8.22	-	-	-	-	-
DO	mg/L	N	NS	6.2	-	-	-	6.91	-	6.56	-	6.34	-	-	-	-	-
ORP	millivolts	N	NS	96	-	-	-	46	-	186	-	40	-	-	-	-	-
pH	pH Units	N	NS	6.20	-	-	-	6.41	-	6.24	-	6.03	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	47800	-	49000	-	44500	-	53900	-	60800	-	42500	-	41100
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	410U	-	410U	-	410U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.7U	-	5.9J	-	9.3U	-	9.3U	-	9.3U	-	9.3U	-	9.3U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	3U	-	3U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	1610	-	2640	-	2750	-	2300	-	1450	-	742	-	4150	-
Iron	ug/L	Y	300	49.5U	-	49.5U	-	41.4J	-	37.8U	-	37.8U	-	66.7U	-	66.7U	-
Methane	ug/L	N	NS	-	69	-	30	-	7.1	-	3.4J	-	2.6J	-	3.8J	-	6.4
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	54J	-	200	-	220	-	330	-	250	-	560
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	44400	-	53700	-	48000	-	51200	-	30500	-	46800	-	57100
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044
			Sample Date	07/06/2006	07/07/2006	09/26/2007	09/27/2007	06/04/2008	06/05/2008	07/27/2009	07/28/2009	07/28/2010	07/29/2010	08/22/2011	08/23/2011	04/02/2012	04/03/2012
			Field Sample ID	M044B3	M044B3X	M044B4	M044B4X	M044B5	M044B5X	M044B6	M044B6X	M044B7	M044B7X	M044B8	M044B8X	M044B9	M044B9X
			SDG	996484	996484	1058407	1058407	1094772	1094772	1155322	1155322	RFS60	RFS60	RFT62	RFT62	RFU37	4825
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	8.54	-	-	-	6.64	-	9.67	-	5.78	7.59	7.5	9.77
DO	mg/L	N	NS	-	-	1.84	-	-	-	6.14	-	7.63	-	0.26	4.61	9.93	10.18
ORP	millivolts	N	NS	-	-	-6	-	-	-	127	-	-48	-	73	109	355.1	217.2
pH	pH Units	N	NS	-	-	6.37	-	-	-	6.04	-	6.42	-	6.70	6.29	6.30	6.10
Alkalinity to pH 4.5	ug/L	N	NS	-	53900	-	67800	-	60500	-	67400	-	59900	-	43000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10U	-	10.0U	-	-	-	-	-	-	-	-	-	5.1U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	5.1U	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-
Iron	ug/L	N	300	509J	-	1180	-	873	-	2270	-	1630	-	1210	-	1320	-
Iron	ug/L	Y	300	52.2U	-	52.2U	-	52.2U	-	52.2U	-	52.2U	-	14.1U	-	14.1U	-
Methane	ug/L	N	NS	-	3.7J	-	9.1	-	2.8J	-	7.2J	-	6.7J	-	5.0U	-	9.5
Nitrogen, Nitrate as N	ug/L	N	10000	-	500	-	55J	-	260	-	360	-	210	-	2500	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	56100	-	98500	-	29800	-	36000	-	41700	-	28000	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0044	MW-0044	MW-0044	MW-0044	MW-0044	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045
			Sample Date	04/03/2012	06/12/2012	06/13/2012	08/05/2013	08/06/2013	10/14/2002	10/14/2002	03/26/2003	03/27/2003	02/17/2004	09/08/2004	10/11/2004	10/12/2004	01/06/2005
			Field Sample ID	M044B9X	M044C1	M044C1X	M044C2	M044C2X	M045A1X	M045A1Y	M045A2X	M045A2Y	M045A3	M045A4	M045A5	M045A5X	M045A6
			SDG	RFU37	RFU82	RFU82	RFB82	RFB82	RFE30	RFE30	RFE68	RFE68	RFE97	RFF23	RFF29	RFF29	RFF35
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.77	7.74	6.16	-	-	-	-	-	-	-	-	5.97	-	-
DO	mg/L	N	NS	10.18	7.31	6.83	-	-	1.05	1.05	3.4	-	-	-	0.65	-	-
ORP	millivolts	N	NS	217.2	-7	82	-	-	156	156	113	-	-	-	63	-	-
pH	pH Units	N	NS	6.10	6.98	6.98	-	-	-	-	-	-	-	-	6.18	-	-
Alkalinity to pH 4.5	ug/L	N	NS	47300	-	54500	-	-	-	51100	-	115000	-	116000	-	80100	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	700U	-	-	-	410U	-	410U	-	410U	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	51100	-	115000	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	700U	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	74300	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	4.9U	-	4.9U	-	4.9U	4.7U	4.7U	-	4.7U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	196J	-	285	-	2360	-	350	-	1140	13700	2850	-	2610
Iron	ug/L	Y	300	-	14.1U	-	43.0U	-	-	-	-	-	-	16900	903	-	49.5U
Methane	ug/L	N	NS	-	-	5.0U	-	3.0U	-	-	-	-	-	2.4J	-	3.3J	-
Nitrogen, Nitrate as N	ug/L	N	10000	1500	-	3300	-	910	-	40U	-	40U	75J	40U	-	69J	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	36300	-	12400	-	38700	-	325000	-	295000	-	225000	-	207000	-
Sulfide	ug/L	N	NS	54U	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045
			Sample Date	01/06/2005	05/18/2005	05/19/2005	07/28/2005	07/28/2005	12/13/2005	12/14/2005	02/23/2006	02/24/2006	05/10/2006	05/10/2006	07/20/2006	07/21/2006	06/11/2008
			Field Sample ID	M045A6X	M045A7	M045A7X	M045A8	M045A8X	M045A9	M045A9X	M045B1	M045B1X	M045B2	M045B2X	M045B3	M045B3X	M045B5
			SDG	RFF35	RFF54	RFF53	953193	953193	971114	971114	979428	979428	989100	989100	998385	998385	1095834
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	5.93	-	6.68	6.68	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	2.25	-	2.12	2.12	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	69	-	56	56	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	5.92	-	6.10	6.10	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	56700	-	51000	-	129000	-	78900	-	55900	-	39200	-	62800	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	410U	-	410U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.3U	-	9.3U	-	9.3U	-	9.3U	-	9.3U	-	10U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	1040	-	1100	-	698	-	2170	-	821	-	2390J	-	10100
Iron	ug/L	Y	300	-	285	-	338	-	37.8U	-	66.7U	-	95.8J	-	1830J	-	6320
Methane	ug/L	N	NS	2.0U	-	2.0U	-	2.0U	-	2.0U	-	3.1J	-	2.0U	-	2.0U	-
Nitrogen, Nitrate as N	ug/L	N	10000	43J	-	42J	-	40U	-	40U	-	40U	-	40U	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	21200	-	189000	-	59100	-	280000	-	372000	-	364000	-	216000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0045	MW-0054	MW-0054
			Sample Date	06/12/2008	08/19/2009	08/20/2009	06/21/2010	06/22/2010	09/01/2011	09/02/2011	06/27/2012	06/28/2012	08/07/2013	08/08/2013	05/10/2004	11/04/2004
			Field Sample ID	M045B5X	M045B6	M045B6X	M045B7-100621	M045B7X-100622	M045B8	M045B8X	M045B9	M045B9X	M045C1	M045C1X	M054A2	M054A1
			SDG	1095834	1158618	1158618	RFS48	RFS48	RFT66	RFT66	RFU94	RFU94	RFB85	RFB85	RFF50	RFF33
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	5.98	-	5.62	7.38	6.59	7.11	4.88	5.72	-	-	-	-
DO	mg/L	N	NS	-	6.11	-	5.41	0	0.17	5.25	1.98	0	-	-	-	-
ORP	millivolts	N	NS	-	-90	-	-27	0	-3	206	50	32	-	-	-	-
pH	pH Units	N	NS	-	6.13	-	6.33	0.00	6.43	6.06	6.63	5.68	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	106000	-	61900	-	62500	-	57400	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	700U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	700U	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	63100	-	72500	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	230	35
Iron	ug/L	N	300	-	18000	-	9690	-	410	-	7740	-	6730	-	-	-
Iron	ug/L	Y	300	-	16800	-	7910	-	20.1J	-	7340	-	6410	-	-	-
Methane	ug/L	N	NS	2.0U	-	5.0U	-	5.0U	-	5.0U	-	5.0U	-	3.0U	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	107000	-	101000	-	64200	-	97900	-	98500	-	83500	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054
			Sample Date	09/22/2005	06/27/2006	11/15/2006	11/16/2006	06/20/2007	06/21/2007	06/11/2008	06/12/2008	09/16/2009	09/17/2009	02/18/2010	02/19/2010	09/02/2011	06/26/2012
			Field Sample ID	M054A3	M054A4	M054A5	M054A5X	M054A6	M054A6X	M054A7	M054A7X	M054A8	M054A8X	M054A9	M054A9X	M054B1X	M054B2X
			SDG	960339	995245	1014679	1014679	1043746	1043746	1095834	1095834	1162355	1162355	1183211	1183211	RFT66	RFU92
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	7.18	-	7.46	-	7.88	-	8.13	8.07
DO	mg/L	N	NS	-	-	-	-	-	-	0	-	5.61	-	0	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-231	-	-163	-	-158	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	7.87	-	7.10	-	7.22	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	592000	-	568000	-	509000	-	550000	-	528000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	460U	-	460U	-	460U	-	460U	-	460U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	320	270	-	220	-	360	-	270	-	280	-	220	190	9
Iron	ug/L	N	300	-	-	291	-	251	-	101J	-	176J	-	670	-	-	-
Iron	ug/L	Y	300	-	-	235	-	136J	-	52.2U	-	113J	-	203	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	40U	-	40U	-	40U	-	40U	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	7600	-	14400	-	44200	-	7700	-	40200	-	-
Sulfide	ug/L	N	NS	-	-	-	730J	-	3200	-	4100	-	530U	-	530U	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054	MW-0054R	MW-0054R
			Sample Date	08/15/2013	08/15/2013	08/28/2013	08/20/2014	12/02/2014	12/02/2014	12/03/2014	12/03/2014	04/07/2015	05/07/2015	06/04/2015	11/10/2017	02/08/2018
			Field Sample ID	D08151312	M054B3	M054B3X	M054B4X	D1202148	M054B5	D1203148	M054B5X	M054B6X	M054B7X	M054B8X	M054RC6	M054RC7X
			SDG	CP074	CP074	CS001	CS143	CP606	CP606	CP611	CP611	CP678	CP706	CP733	CQ877	CQ969
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.55	7.55	7.95	7.89	9.05	9.05	9.33	9.33	7.2	16.75	14.6	4	-
DO	mg/L	N	NS	0.18	0.18	-	-	0.31	0.31	7.01	7.01	8.85	2.17	1.13	5.39	-
ORP	millivolts	N	NS	-269.8	-269.8	-	-	-204.1	-204.1	-110.9	-110.9	-235	-289	-295	8.7	-
pH	pH Units	N	NS	7.23	7.23	-	-	6.93	6.93	6.99	6.99	7.59	7.34	7.01	7.24	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	374000	411000	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	374000	411000	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	2.6	2.7	-	-	1.0J	1.0J	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	1.6J	1.6J	-	-	0.82U	0.88J	-	-	-	-	-	-	-
Benzene	ug/L	N	1	64	81	120	110	-	-	48	47	110	130	84	6	0.5U
Iron	ug/L	N	300	2340	2460	-	-	369	414	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	76.6UJ	81.7UJ	-	-	-	-	-	-	-
Methane	ug/L	N	NS	10000	12000	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	40U	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	20700	19700	-	-	-	-	169000	163000J+	-	-	-	-	-
Sulfide	ug/L	N	NS	3400	3100	-	-	-	-	5400	5400	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0054R	MW-0055	MW-0055	MW-0055	MW-0055	MW-0055R	MW-0055R	MW-0055R	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056
			Sample Date	04/30/2018	08/14/2013	11/13/2014	12/02/2014	12/03/2014	11/10/2017	02/02/2018	05/01/2018	11/04/2004	05/10/2005	09/22/2005	06/27/2006	11/01/2006
			Field Sample ID	M054RC8X	M055A1	M055A3X	M055A2	M055A2X	M055RB1	M055RB2	M055RB3X	M056A1	M056A2	M056A3	M056A4	M056A5
			SDG	CR043	CP074	CS185	CP606	CP611	CQ877	CQ961	CR044	RFF33	RFF50	960339	995245	1012672
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	8.21	7.84	9.32	8.81	2.5	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	1.71	-	0.06	3.49	5.87	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-133.9	-	-101.3	-63.7	-25.1	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	7.56	-	6.61	6.07	7.95	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	427000	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	427000	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	1.9J	-	2.8	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	1.3J	-	2.2	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	28	1	-	5	4	5	2	2J	2J	1J	38	-
Iron	ug/L	N	300	-	2790	-	10800	-	-	-	-	-	-	-	-	588J
Iron	ug/L	Y	300	-	-	-	10400	-	-	-	-	-	-	-	-	319J
Methane	ug/L	N	NS	-	9200	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	4100J	-	-	162000	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	900J	-	-	600U	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056	MW-0056
			Sample Date	11/02/2006	06/20/2007	06/21/2007	06/11/2008	06/12/2008	09/10/2009	09/11/2009	02/18/2010	02/19/2010	09/02/2011	06/26/2012	06/26/2012	08/14/2013	08/28/2013
			Field Sample ID	M056A5X	M056A6	M056A6X	M056A7	M056A7X	M056A8	M056A8X	M056A9	M056A9X	M056B1X	D0626121	M056B2X	M056B2	M056B3X
			SDG	1012672	1043746	1043746	1095834	1095834	1161510	1161510	1183211	1183211	RFT66	RFU92	RFU92	CP074	CS001
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	8.25	-	8.82	-	8.21	8.78	8.78	7.4	8.25
DO	mg/L	N	NS	-	-	-	-	-	5.52	-	0	-	0.69	-	-	6.2	-
ORP	millivolts	N	NS	-	-	-	-	-	-111	-	-2	-	13	-	-	-140.1	-
pH	pH Units	N	NS	-	-	-	-	-	6.62	-	6.46	-	6.17	-	-	6.80	-
Alkalinity to pH 4.5	ug/L	N	NS	182000	-	183000	-	164000	-	230000	-	183000	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	113000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	113000	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	1.6J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	0.53J	-
Benzene	ug/L	N	1	10	-	36	-	12	-	10	-	17	6	5J	140J	4J	11
Iron	ug/L	N	300	-	14000	-	2930	-	14600	-	3240	-	-	-	-	3750	-
Iron	ug/L	Y	300	-	14700	-	2720	-	14000	-	2330	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	440	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	71J	-	40U	-	40U	-	40U	-	-	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	627000	-	343000	-	287000	-	238000	-	551000	-	-	-	359000	-
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	-	-	1000J	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0056	MW-0056R	MW-0056R	MW-0056R	MW-0056R	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101
			Sample Date	08/20/2014	11/10/2017	02/02/2018	05/01/2018	05/01/2018	10/10/2002	10/10/2002	10/11/2002	03/24/2003	03/26/2003	07/12/2004	10/11/2004	10/12/2004
			Field Sample ID	M056B4X	M056RC3	M056RC4	D0501188	M056RC5X	M101A1X	M101A1Z	M101A1Y	M101A2Y	M101A2X	M101A3	M101A4	M101A4X
			SDG	CS143	CQ877	CQ961	CR044	CR044	RFE28	RFE28	RFE28	RFE68	RFE68	RFF16	RFF29	RFF29
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.19	3	-	-	-	-	-	-	-	-	-	14.1	-
DO	mg/L	N	NS	2.01	2.65	-	-	-	3.7	3.7	-	1.2	-	0.72	0.6	-
ORP	millivolts	N	NS	-322	-135.7	-	-	-	-83	-83	-	-84	-	-138	-151	-
pH	pH Units	N	NS	6.72	8.11	-	-	-	-	-	-	-	-	6.52	6.41	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	440000	541000	-	461000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	410U	410U	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	406000	-	440000	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	18.6	-	14	-	9.4J	11.3	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	4	40	32	24	22	110	-	-	-	100	45	-	70
Iron	ug/L	N	300	-	-	-	-	-	-	76600	-	67500	-	115000	99700	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	110000	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	13000	-	9900
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	40U	-	40U	200U	-	770J
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	129000	-	46100	62500	-	35900
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101
			Sample Date	01/12/2005	01/13/2005	05/11/2005	05/12/2005	07/20/2005	07/21/2005	12/13/2005	12/14/2005	02/21/2006	02/22/2006	05/08/2006	05/09/2006	07/20/2006	07/21/2006
			Field Sample ID	M101A5	M101A5X	M101A6	M101A6X	M101A7	M101A7X	M101A8	M101A8X	M101A9	M101A9X	M101B1	M101B1X	M101B2	M101B2X
			SDG	RFF36	RFF36	RFF50	RFF50	952296	952296	971114	971114	979093	979093	988894	988894	998385	998385
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	14.41	-	13.66	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	2.67	-	1.14	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-171	-	-127	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	6.49	-	6.08	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	394000	-	569000	-	557000	-	423000	-	-	-	511000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	410U	-	410U	-	460U	-	-	-	460U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	28.8	-	9.4J	-	9.3U	-	9.3U	-	13.2J	-	9.3U	-	10U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	51J	-	49	-	36	-	73	-	78	-	58	-	43
Iron	ug/L	N	300	53500	-	68500	-	78200	-	85800	-	114000	-	111000	-	110000J	-
Iron	ug/L	Y	300	54100	-	81000	-	69600	-	85400	-	109000	-	115000	-	105000J	-
Methane	ug/L	N	NS	-	13000	-	7200	-	6200	-	6300	-	6600	-	6400	-	6900
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	800U	-	40U	-	40U	-	-	-	40U	-	400U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	70000	-	25100	-	53500	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102
			Sample Date	05/27/2008	08/17/2009	07/26/2010	08/30/2011	06/26/2012	08/07/2013	08/08/2013	10/14/2002	10/14/2002	01/30/2003	01/30/2003	02/23/2004	07/08/2004	10/18/2004
			Field Sample ID	M101B3	M101B4	M101B5	M101B6	M101B7	M101B8	M101B8X	M102A1X	M102A1Y	M102A2X	M102A2Y	M102A3	M102A4	M102A5
			SDG	1093320	1158153	RFS58	RFT65	RFU93	RFB85	RFB85	RFE30	RFE30	RFE62	RFE62	RFE97	RFF16	RFF30
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	14.02	13.04	13.32	12.45	13.12	-	-	-	-	-	-	-	2.98	3.08
DO	mg/L	N	NS	1.7	5.39	0	0.24	0.14	-	-	0.79	0.79	1.64	1.64	-	0.96	0.18
ORP	millivolts	N	NS	-156	-114	-159	-61	-97	-	-	-91	-91	-48	-48	-	-131	-100
pH	pH Units	N	NS	6.12	6.20	7.41	6.43	8.09	-	-	-	-	-	-	-	6.49	6.38
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	237000	-	314000	-	297000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	410U	-	410U	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	624000	-	237000	-	314000	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	700U	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	624000	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.2U	7.2U	16.7J	8.7J	17.0J	12.6	-	9.7J	-	4.9U	-	4.9U	7.5J	5.2J
Arsenic	ug/L	Y	3	-	-	-	-	-	11.0	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	-	-	-	-	-	-	-	1700	-	1600	1100	1400	-
Iron	ug/L	N	300	-	-	-	-	-	58000	-	30000	-	47100	-	35500	38700	27700
Iron	ug/L	Y	300	-	-	-	-	-	58100	-	-	-	-	-	-	-	27600
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	11000	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	40U	-	40U	-	40U	40U	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	183000	-	6000U	-	6000U	-	3000U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	5200	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102
			Sample Date	10/19/2004	01/04/2005	01/05/2005	05/19/2005	05/19/2005	07/25/2005	07/26/2005	11/28/2005	11/29/2005	02/08/2006	02/09/2006	04/27/2006	04/28/2006	07/06/2006
			Field Sample ID	M102A5X	M102A6	M102A6X	M102A7	M102A7X	M102A8	M102A8X	M102A9	M102A9X	M102B1	M102B1X	M102B2	M102B2X	M102B3
			SDG	RFF30	RFF35	RFF35	RFF54	RFF53	952791	952791	969074	969074	977634	977634	987510	987510	996484
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	3.1	3.1	2.8	-	2.79	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	2.32	2.32	1.74	-	0.81	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-119	-119	-125	-	-144	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	6.14	6.14	6.34	-	6.20	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	287000	-	289000	-	295000	-	273000	-	264000	-	275000	-	282000	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	410U	-	410U	-	410U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	4.7U	-	9.3U	-	9.3U	-	9.3U	-	9.3U	-	9.3U	-	10U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1300	-	910	-	1100	-	1200	-	390	-	1000	-	1100	-
Iron	ug/L	N	300	-	28600	-	39300	-	43700	-	27000	-	24900	-	34900	-	32800J
Iron	ug/L	Y	300	-	27300	-	38300	-	45300	-	25200	-	24700	-	34900	-	35400J
Methane	ug/L	N	NS	8200	-	7000	-	4300	-	4900	-	3800	-	4100	-	3700	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1500U	-	5200	-	6000U	-	11400J	-	27500	-	3000U	-	12100J	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102
			Sample Date	07/07/2006	09/24/2007	09/25/2007	05/29/2008	05/30/2008	09/01/2009	09/02/2009	07/28/2010	07/29/2010	08/22/2011	08/23/2011	04/03/2012	04/03/2012	04/03/2012
			Field Sample ID	M102B3X	M102B4	M102B4X	M102B5	M102B5X	M102B6	M102B6X	M102B7	M102B7X	M102B8	M102B8X	D0403123	M102B9	M102B9X
			SDG	996484	1057932	1057932	1093788	1093788	1160329	1160329	RFS60	RFS60	RFT62	RFT62	RFU37	RFU37	4825
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	2.23	-	-	-	2.68	3.19	1.54	1.96	3.1	3.1	3.1
DO	mg/L	N	NS	-	-	-	2.08	-	-	-	2.32	0	9.04	1.2	1.05	1.05	1.05
ORP	millivolts	N	NS	-	-	-	-128	-	-	-	-199	-154	-8	16	18.2	18.2	18.2
pH	pH Units	N	NS	-	-	-	6.09	-	-	-	7.30	7.62	6.83	6.40	6.31	6.31	6.31
Alkalinity to pH 4.5	ug/L	N	NS	266000	-	276000	-	195000	-	215000	-	234000	-	141000	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	-	10.2U	-	-	-	-	-	-	-	-	5.1U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1100	-	1200	-	720	-	570	-	680	-	450	360	-	-
Iron	ug/L	N	300	-	27300	-	19900	-	7970	-	2900	-	264	-	-	3210	-
Iron	ug/L	Y	300	-	27400	-	20700	-	7170	-	1300	-	19.4J	-	-	-	-
Methane	ug/L	N	NS	6500	-	5600	-	4000	-	3800	-	5800	-	1100	-	-	2500
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	12400J	-	10000U	-	50200	-	4500J	-	5000U	-	13100	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103
			Sample Date	04/03/2012	06/12/2012	06/13/2012	04/29/2013	08/12/2013	08/13/2013	11/20/2002	11/20/2002	03/11/2003	03/11/2003	02/11/2004	06/27/2005	06/28/2005	06/20/2006
			Field Sample ID	M102B9X	M102C1	M102C1X	M102C2X	M102C4	M102C4X	M103A1X	M103A1Y	M103A2X	M103A2Y	M103A3	M103A4	M103A4X	M103A5
			SDG	RFU37	RFU82	RFU82	RFZ19	RFB88	RFB88	RFE38	RFE38	RFE67	RFE67	RFE96	949185	949185	994484
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.1	2.41	2.04	7.75	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	1.05	3.75	5.18	2.92	-	-	4.1	4.1	2.2	2.2	-	-	-	-
ORP	millivolts	N	NS	18.2	-14	77	19.5	-	-	-35	-35	-10	-10	-	-	-	-
pH	pH Units	N	NS	6.31	6.70	7.18	7.05	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	106000	-	108000	-	-	-	-	61500	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	700U	-	-	-	-	410U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	61500	-	53200	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	700U	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	119000	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	9.1J	-	4.9U	-	6.4J	10.4J	-	10U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	370	-	0.5U	150	-	110	-	0.7J	-	0.5U	0.5U	-	1J	-
Iron	ug/L	N	300	-	2480	-	-	634	-	122000	-	71600	-	96800	79500	-	8880J
Iron	ug/L	Y	300	-	1990	-	-	145J	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	5.2J	-	-	1600	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	4000	-	-	40U	-	40U	-	-	40U	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	12100	-	36800	-	-	40000	-	40000	-	143000	-	-	-	-
Sulfide	ug/L	N	NS	54U	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103
			Sample Date	06/21/2006	06/19/2007	06/20/2007	05/29/2008	05/30/2008	09/08/2009	09/09/2009	08/09/2010	08/10/2010	09/15/2011	09/16/2011	06/21/2012	06/22/2012	08/26/2013
			Field Sample ID	M103A5X	M103A6	M103A6X	M103A7	M103A7X	M103A8	M103A8X	M103A9	M103A9X	M103B1	M103B1X	M103B2	M103B2X	M103B3
			SDG	994484	1043537	1043537	1093788	1093788	1161168	1161168	RFS63	RFS63	RFT69	RFT69	RFU89	RFU89	RFB98
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	5.34	5.93	-	-	-	4.76	5.51	5.35	5.91	6.14
DO	mg/L	N	NS	-	-	-	-	8.98	5.87	-	-	-	3.1	1.32	1.31	0.94	0.73
ORP	millivolts	N	NS	-	-	-	-	158	-108	-	-	-	-60	27	-62	24	-322
pH	pH Units	N	NS	-	-	-	-	5.69	6.29	-	-	-	6.69	6.07	7.18	5.89	6.51
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	-	10.2U	-	17.0J	-	19.2J	-	35.6	-	36.4	-	93.5
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	88.7
Benzene	ug/L	N	1	0.5J	-	0.5U	-	0.5U	-	0.5U	-	0.7J	-	0.5J	-	0.5U	-
Iron	ug/L	N	300	-	28500	-	-	-	-	-	-	-	-	-	-	-	24600
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	21400
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-104	MW-104	MW-104	MW-104	MW-104
			Sample Date	08/27/2013	08/20/2014	08/21/2014	07/15/2015	07/16/2015	09/11/2017	09/12/2017	02/27/2018	02/28/2018	12/11/2002	12/11/2002	01/28/2003	01/29/2003	02/11/2004
			Field Sample ID	M103B3X	M103B4	M103B4X	M103B5	M103B5X	M103B9	M103B9X	M103C1	M103C1X	M104A1X	M104A1Y	M104A2X	M104A2Y	M104A3
			SDG	RFB98	CS144	CS144	CS262	CS262	CS601	CS601	CS654	CS654	RFE48	RFE48	RFE61	RFE61	RFE96
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.1	6.53	6.73	-	-	-	6.23	-	-	-	-	-	-	-
DO	mg/L	N	NS	0.67	0.72	4.51	-	2.41	-	4.06	-	-	1.09	1.09	1.41	-	-
ORP	millivolts	N	NS	-222	173	-265	-	-65	-	70	-	-	54	54	-23	-	-
pH	pH Units	N	NS	6.17	6.79	6.21	-	7.02	-	7.01	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	99800	-	19200	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410U	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	152000	-	86400	-	75000	-	-	-	-	-	99800	-	19200	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	700U	-	1700U	-	1700U	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	152000	-	86400	-	75000	-	57700	-	31500	-	-	-	-	-
Arsenic	ug/L	N	3	-	26.0	-	14.8J	-	2.2	-	2.3	-	4.9U	-	4.9U	-	4.9U
Arsenic	ug/L	Y	3	-	18.4	-	13.1	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5J	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U
Iron	ug/L	N	300	-	36500	-	11000	-	3580	-	2600	-	39900	-	37100	-	47600
Iron	ug/L	Y	300	-	33500	-	10000	-	80.5U	-	80.5U	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	42J	-	360	-	820	-	1700	-	40U	-	40U	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	20700	-	55700	-	80200	-	64900	-	113000	-	470000	-	138000	-
Sulfide	ug/L	N	NS	600U	-	600U	-	680U	-	700U	-	700U	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104
			Sample Date	06/27/2005	06/28/2005	06/20/2006	06/21/2006	06/19/2007	06/20/2007	05/30/2008	09/09/2009	08/10/2010	09/16/2011	06/22/2012	08/27/2013	08/21/2014	02/28/2018
			Field Sample ID	M104A4	M104A4X	M104A5	M104A5X	M104A6	M104A6X	M104A7X	M104A8X	M104A9X	M104B1X	M104B2X	M104B3X	M104B4X	M104B7X
			SDG	949185	949185	994484	994484	1043537	1043537	1093788	1161168	RFS63	RFT69	RFU89	RFB98	CS144	CS654
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	11.31	-	-	-	-	-	-	-	-	12.66	11.6	11.44	11.93	-
DO	mg/L	N	NS	0.46	-	-	-	-	-	-	-	-	5.86	0.81	0.97	-	-
ORP	millivolts	N	NS	-65	-	-	-	-	-	-	-	-	96	54	-190	-	-
pH	pH Units	N	NS	6.08	-	-	-	-	-	-	-	-	5.51	5.31	5.84	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	9.3U	-	10U	-	10.0U	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	35000	-	56900J	-	62200	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	400U	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105
			Sample Date	11/20/2002	11/20/2002	03/11/2003	03/12/2003	11/18/2003	11/20/2003	02/24/2004	05/25/2004	05/25/2004	05/26/2004	06/27/2005	06/28/2005
			Field Sample ID	M105A1X	M105A1Y	M105A2X	M105A2Y	M105A3	M105A3A	M105A4	040525MW-105	040525MW-105	040526MW-105	M105A5	M105A5X
			SDG	RFE38	RFE38	RFE67	RFE67	RFE93	RFE93	RFE97	PHS01	PHS02	PHS01	949185	949185
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	1.33	-
DO	mg/L	N	NS	0.95	0.95	1.29	-	-	-	-	-	-	-	1.26	-
ORP	millivolts	N	NS	-1	-1	98	-	-	-	-	-	-	-	16	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	5.13	-
Alkalinity to pH 4.5	ug/L	N	NS	-	14400	-	410U	-	-	-	-	-	410U	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	-	-	-	-	-	-	410U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	14400	-	410U	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	-	4.9U	-	4.9U	-	4.9U	9.4U	-	-	9.3U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	9.4U	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-	0.5U	-	0.5U
Iron	ug/L	N	300	346000	-	376000	-	391000	-	400000	329000	-	-	259000	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	333000	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	-	200U	40U	-	-	40U	-	400U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	779000	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	870000	-	-	-	-	-	-	-	771000	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	530U	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-106	MW-106
			Sample Date	06/20/2006	06/21/2006	06/20/2007	06/21/2007	05/20/2008	09/11/2009	08/12/2010	08/12/2010	09/16/2011	06/29/2012	08/27/2013	08/22/2014	10/14/2002	10/15/2002
			Field Sample ID	M105A6	M105A6X	M105A7	M105A7X	M105A8X	M105A9X	D0812101	M105B1X	M105B2X	M105B3X	M105B4X	M105B5X	M106A1Y	M106A1X
			SDG	994484	994484	1043746	1043746	1092258	1161510	RFS63	RFS63	RFT69	RFU96	RFB98	CS145	RFE30	RFE30
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	5.37	3.81	2.39	5.15	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	4.35	0.06	0.84	3.22	1.97	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	201	34	-150	180	39	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	4.38	5.43	5.24	3.94	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	410U
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	410U
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10U	-	10.0U	-	-	-	-	-	-	-	-	-	4.9U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U
Iron	ug/L	N	300	312000J	-	282000	-	-	-	-	-	-	-	-	-	70200	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	-	-	-	-	-	-	-	-	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-	180000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-106	MW-106	MW-106	MW-106	MW-106	MW-106R	MW-106R	MW-106R	MW-106R	MW-106R	MW-106R	MW-106R	MW-106R	MW-106R
			Sample Date	02/03/2003	02/03/2003	02/03/2003	04/11/2003	09/14/2004	02/12/2004	05/12/2005	09/29/2005	06/23/2006	10/18/2006	06/19/2007	05/21/2008	05/22/2008	09/08/2009
			Field Sample ID	M106A2	M106A2	M106A2	M106A24	M106A3	M106RA1	M106RA4X	M106RA5	M106RA6	M106RA7	M106RA8	M106RA9	M106RA9X	M106RB1
			SDG	RFE61	RFE62			RFF24	RFE96	RFF50	961227	994925	1010461	1043329	1092717	1092717	1161168
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	16.29	-	12.81
DO	mg/L	N	NS	-	-	-	1.38	-	-	-	-	-	-	-	4.33	-	6.72
ORP	millivolts	N	NS	-	-	-	34	-	-	-	-	-	-	-	317	-	252
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	4.65	-	4.75
Alkalinity to pH 4.5	ug/L	N	NS	-	410U	1180000	1180000	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	51000	51000	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	410U	1080000	1080000	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	-	8.2	8.2	-	4.9U	-	-	-	-	-	10.2U	-	7.2U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5	0.5	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-
Iron	ug/L	N	300	61200	-	17400	17400	-	21600	-	-	-	-	-	1030	-	730
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	40	40	40U	40U	800U	40U	40U	40U	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	233000	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	158000	-	233000	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-106R	MW-106R	MW-106R	MW-106R	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108
			Sample Date	09/09/2009	08/10/2010	08/31/2011	06/15/2012	10/24/2002	12/02/2002	03/05/2003	03/05/2003	02/10/2004	09/14/2004	05/10/2005	09/26/2005	06/21/2006	10/18/2006
			Field Sample ID	M106RB1X	M106RB2X	M106RB3X	M106RB4X	M108A1X	M108A1Y	M108A2X	M108A2Y	M108A3	M108A4	M108A5	M108A6	M108A7	M108A8
			SDG	1161168	RFS63	RFT65	RFU84	RFE35	RFE43	RFE66	RFE66	RFE96	RFF24	RFF50	960687	994484	1010461
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	17.72	17.71	18.02	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	1.09	0.22	2.86	0.68	-	1.05	1.05	-	-	-	-	-	-
ORP	millivolts	N	NS	-	182	373	357	0	-	195	195	-	-	-	-	-	-
pH	pH Units	N	NS	-	5.21	4.30	4.26	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	410U	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	410U	-	410U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	410U	-	410U	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	7.5J	-	4.9U	-	5.7J	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	7	-	4J	8	4J	4J	4J	5	4J
Iron	ug/L	N	300	-	-	-	-	17700	-	13900	-	16700	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	40U	-	40U	40U	40U	40U	40U	40U	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	61000	-	43600J	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108	MW-108
			Sample Date	06/19/2007	05/21/2008	05/22/2008	09/08/2009	09/09/2009	08/09/2010	08/10/2010	08/30/2011	08/31/2011	06/14/2012	06/15/2012	08/06/2013	08/15/2013	08/20/2014
			Field Sample ID	M108A9	M108B1	M108B1X	M108B2	M108B2X	M108B3	M108B3X	M108B4	M108B4X	M108B5	M108B5X	M108B6	M108B6X	M108B7
			SDG	1043329	1092717	1092717	1161168	1161168	RFS63	RFS63	RFT65	RFT65	RFU84	RFU84	RFB92	RFB92	CS144
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	10.01	-	7.34	-	-	-	6.76	15.93	6.98	15.97	-	-	9.96
DO	mg/L	N	NS	-	1.05	-	5.36	-	-	-	0.54	0.37	3.72	0.54	-	-	0.98
ORP	millivolts	N	NS	-	153	-	84	-	-	-	145	267	135	166	-	-	172
pH	pH Units	N	NS	-	4.73	-	5.10	-	-	-	5.44	4.83	6.00	5.47	-	-	6.03
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	20700	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	20700	-
Arsenic	ug/L	N	3	-	10.2U	-	7.2U	-	9.8U	-	5.1U	-	5.1U	-	0.42U	-	1.6J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	0.42U	-	0.82U
Benzene	ug/L	N	1	1J	-	0.9J	-	3J	-	3J	-	3J	-	1J	-	0.5U	-
Iron	ug/L	N	300	-	14600	-	-	-	-	-	-	-	-	-	15800	-	28700
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	15700	-	17700
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	15300J	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-108	MW-108	MW-108	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110
			Sample Date	08/21/2014	02/28/2018	03/01/2018	10/24/2002	10/25/2002	01/29/2003	01/30/2003	02/23/2004	05/21/2008	09/01/2009	06/29/2010	09/06/2011	06/18/2012
			Field Sample ID	M108B7X	M108C1	M108C1X	M110A1Y	M110A1X	M110A2X	M110A2Y	M110A3	M110A8	M110A9	M110B1-100629	M110B2	M110B3
			SDG	CS144	CS655	CS655	RFE35	RFE35	RFE61	RFE62	RFE97	1092717	1160329	RFS51	RFT67	RFU85
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	17.5	-	-	-	-	-	-	-	7.31	7.68	7.89	7.68	7.81
DO	mg/L	N	NS	-	-	-	-	3	6.1	-	-	1.34	5.73	0.61	0.04	0.37
ORP	millivolts	N	NS	-	-	-	-	72	181	-	-	-71	-50	-61	48	39
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	5.90	4.98	6.52	6.06	6.42
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	62800	-	57900	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	410U	-	410U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	700U	-	-	-	62800	-	57900	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	1700U	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	700U	-	1700U	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	0.72U	-	4.9U	-	4.9U	-	4.9U	23.2	7.6J	48.0	8.5J	5.1U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-	-	-	-
Iron	ug/L	N	300	-	1200	-	3090	-	663	-	24200	96200	-	-	-	-
Iron	ug/L	Y	300	-	591	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	0.040U	40U	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	27100	-	27200	-	1500U	-	286000	-	-	-	-	-	-
Sulfide	ug/L	N	NS	600U	-	700U	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-110	MW-110	MW-110	MW-110	MW-110	MW-110	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111
			Sample Date	08/06/2013	08/15/2013	08/21/2014	08/22/2014	02/28/2018	03/01/2018	10/28/2002	10/29/2002	03/05/2003	03/06/2003	02/12/2004	09/16/2004	05/12/2005	09/29/2005
			Field Sample ID	M110B4	M110B4X	M110B5	M110B5X	M110B9	M110B9X	M111A1X	M111A1Y	M111A2Y	M111A2X	M111A3	M111A4	M111A5X	M111A6
			SDG	RFB92	RFB92	CS145	CS145	CS655	CS655	RFE35	RFE35	RFE66	RFE66	RFE96	RFF24	RFF50	961227
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	7.38	7.75	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	1.68	0.55	-	-	0.73	-	0.83	-	-	-	-	-
ORP	millivolts	N	NS	-	-	131	126	-	-	162	-	419	-	-	-	-	-
pH	pH Units	N	NS	-	-	6.52	6.11	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	27100	-	128000	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	410U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	91100	-	110000	-	-	-	27100	-	128000	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	1700U	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	91100	-	110000	-	102000	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	7.6	-	22.2	-	12.9	-	4.9U	-	6.8J	-	4.9U	-	-	-
Arsenic	ug/L	Y	3	3.2	-	8.5	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	-	-	-	-	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	37000	-	60400	-	100000	-	230000	-	202000	-	124000	-	-	-
Iron	ug/L	Y	300	26000	-	50900	-	99900	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	-	40U	40U	800U	400U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	364000	-	486000	-	377000	-	730000	-	598000	-	-	-	-
Sulfide	ug/L	N	NS	-	600U	-	600U	-	700U	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111
			Sample Date	06/23/2006	10/18/2006	06/19/2007	05/21/2008	05/22/2008	09/08/2009	09/09/2009	08/09/2010	08/09/2010	08/10/2010	08/10/2010	08/30/2011	08/31/2011	06/18/2012
			Field Sample ID	M111A7	M111A8	M111A9	M111B1	M111B1X	M111B2	M111B2X	D0809101	M111B3	D0810101	M111B3X	M111B4	M111B4X	M111B5
			SDG	994925	1010461	1043329	1092717	1092717	1161168	1161168	RFS63	RFS63	RFS63	RFS63	RFT65	RFT65	RFU85
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	12.95	-	11.57	-	-	-	-	-	10.81	16.51	11.67
DO	mg/L	N	NS	-	-	-	1.65	-	6.57	-	-	-	-	-	12.76	0.38	4.55
ORP	millivolts	N	NS	-	-	-	399	-	316	-	-	-	-	-	143	291	198
pH	pH Units	N	NS	-	-	-	3.04	-	3.21	-	-	-	-	-	5.27	4.00	5.14
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	10.2U	-	7.2U	-	9.8U	9.8U	-	-	6.5J	-	9.2J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	-	0.5U	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	-	-	57800	-	90000	-	72300	78300	-	-	42000	-	55400
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	78J	40U	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-111	MW-129	MW-129	MW-129	MW-129	MW-129
			Sample Date	06/19/2012	08/06/2013	08/15/2013	08/20/2014	08/21/2014	02/28/2018	02/28/2018	03/01/2018	03/01/2018	10/14/2002	10/14/2002	01/28/2003	01/29/2003	11/19/2003
			Field Sample ID	M111B5X	M111B6	M111B6X	M111B7	M111B7X	D0228181	M111C1	D0301181	M111C1X	M129A1X	M129A1Y	M129A2X	M129A2Y	M129A3
			SDG	RFU85	RFB92	RFB92	CS144	CS144	CS655	CS655	CS655	CS655	RFE30	RFE30	RFE61	RFE61	RFE93
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	16.64	-	-	11.71	16.68	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	3.69	-	-	1.83	-	-	-	-	-	1.54	1.54	-	0.9	-
ORP	millivolts	N	NS	231	-	-	149	-	-	-	-	-	9	9	-	132	-
pH	pH Units	N	NS	3.27	-	-	5.80	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	190000	-	410U	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410U	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	700U	-	700U	-	-	-	-	-	190000	-	410U	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	700U	-	-	1700U	1700U	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	700U	-	700U	-	-	1700U	1700U	-	-	-	-	-
Arsenic	ug/L	N	3	-	2.4	-	1.4J	-	3.4	1.6J	-	-	297	-	125	-	197
Arsenic	ug/L	Y	3	-	2.3	-	1.3J	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U
Iron	ug/L	N	300	-	38100	-	50300	-	23800	22600	-	-	346	-	671	-	1580
Iron	ug/L	Y	300	-	37300	-	52800	-	23300	23500	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	40U	-	-	40U	40U	-	40U	-	40U	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	457000	-	432000	-	-	466000	513000	-	6000U	-	8500	-
Sulfide	ug/L	N	NS	-	-	600U	-	1200J	-	-	700U	700U	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129
			Sample Date	02/25/2004	07/20/2004	10/13/2004	10/14/2004	01/10/2005	01/11/2005	05/16/2005	05/17/2005	07/27/2005	07/28/2005	12/13/2005	12/14/2005	02/23/2006	02/24/2006
			Field Sample ID	M129A4	M129A5	M129A6	M129A6X	M129A7	M129A7X	M129A8	M129A8X	M129A9	M129A9X	M129B1	M129B1X	M129B2	M129B2X
			SDG	RFE97	RFF17	RFF30	RFF30	RFF35	RFF35	RFF51	RFF52	953193	953193	971114	971114	979428	979428
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	1.88	-	-	-	1.44	-	1.2	-	-	-	-	-
DO	mg/L	N	NS	-	-	0.28	-	-	-	2.78	-	2.81	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-157	-	-	-	-138	-	-142	-	-	-	-	-
pH	pH Units	N	NS	-	-	8.11	-	-	-	7.53	-	7.35	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	182000	-	198000	-	156000	-	147000	-	191000	-	175000	-	161000
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	410U	-	410U	-	410U	-	410U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	123	265	250	-	151	-	182	-	281	-	173	-	127	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.7J	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	1280	428	458	-	973	-	266	-	264	-	729	-	437	-
Iron	ug/L	Y	300	-	-	221	-	143J	-	89.9J	-	170J	-	614	-	357	-
Methane	ug/L	N	NS	-	1600	-	2500	-	7700	-	2000	-	2600	-	3100	-	3700
Nitrogen, Nitrate as N	ug/L	N	10000	40U	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	3400J	-	1500U	-	12000	-	14600	-	7100	-	19500	-	25800
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129
			Sample Date	08/16/2006	08/17/2006	09/26/2007	09/27/2007	06/16/2008	06/17/2008	09/14/2009	09/15/2009	08/11/2010	08/12/2010	09/14/2011	09/14/2011	09/15/2011	09/15/2011
			Field Sample ID	M129B4	M129B4X	M129B5	M129B5X	M129B6	M129B6X	M129B7	M129B7X	M129B8	M129B8X	D0914111	M129B9	D0915111	M129B9X
			SDG	1002093	1002093	1058407	1058407	1096527	1096527	1161893	1161893	RFS63	RFS63	RFT68	RFT68	RFT68	RFT68
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	1.71	-	2.27	3.19	1.66	1.66	2.51	2.51
DO	mg/L	N	NS	-	-	-	-	-	-	6.64	-	0.69	0.12	4.05	4.05	0.09	0.09
ORP	millivolts	N	NS	-	-	-	-	-	-	-89	-	-152	-33	-97	-97	18	18
pH	pH Units	N	NS	-	-	-	-	-	-	6.63	-	9.71	8.63	7.59	7.59	7.46	7.46
Alkalinity to pH 4.5	ug/L	N	NS	-	237000	-	259000	-	231000	-	255000	-	266000	-	-	286000	280000
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	-	460U	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	311	-	10.9J	-	235	-	245	-	242	-	101	102	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	0.5U
Iron	ug/L	N	300	278	-	18700	-	476	-	1770	-	810	-	2720	3080	-	-
Iron	ug/L	Y	300	222	-	238	-	432	-	1650	-	737	-	2710	2240	-	-
Methane	ug/L	N	NS	-	2500	-	5900	-	7000	-	1400	-	160	-	-	2800	2700
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	-	40U	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2000J	-	2500U	-	2500U	-	3900J	-	2500U	-	-	2500U	2500U
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-129	MW-130	MW-130	MW-130	MW-130	MW-130
			Sample Date	06/28/2012	06/29/2012	09/26/2013	08/21/2014	08/22/2014	07/15/2015	07/16/2015	12/18/2017	12/19/2017	12/02/2002	12/02/2002	04/09/2003	04/09/2003	02/24/2004
			Field Sample ID	M129C1	M129C1X	M129C2	M129C3	M129C3X	M129C4	M129C4X	M129D2	M129D2X	M130A1X	M130A1Y	M130A2X	M130A2Y	M130A3
			SDG	RFU96	RFU96	CP120	CS145	CS145	CS262	CS262	CS628	CS628	RFE43	RFE43	RFE70	RFE70	RFE97
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.3	2.07	-	2.27	2.51	2.38	-	-	3.36	-	-	-	-	-
DO	mg/L	N	NS	3.44	6.4	-	0.89	0.2	2.62	-	-	5.73	3.77	3.77	4.29	4.29	-
ORP	millivolts	N	NS	-66	-84	-	143	155	-90	-	-	-56	168	168	58	58	-
pH	pH Units	N	NS	8.36	7.55	-	7.25	7.21	7.57	-	-	7.99	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	57000	-	-	36500	-
Alkalinity to pH 8.3	ug/L	N	NS	-	700U	-	-	-	-	-	-	-	410U	-	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	277000	-	265000	-	263000	57000	-	-	36500	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	700U	-	700U	-	1700U	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	254000	-	-	277000	-	265000	-	263000	-	-	-	-	-
Arsenic	ug/L	N	3	187	-	196	85.2	-	183J	-	154	-	-	4.9U	8.5J	-	4.9U
Arsenic	ug/L	Y	3	-	-	192	84.2	-	188	-	154	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-	0.5U	0.5U
Iron	ug/L	N	300	1550	-	-	2540	-	2240	-	5330	-	-	2000	14800	-	981
Iron	ug/L	Y	300	1450	-	-	2600	-	1990	-	5220	-	-	-	-	-	-
Methane	ug/L	N	NS	-	2700	-	-	1500	-	980	-	760	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	40U	-	40U	-	40U	840	-	-	1400	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2500U	-	-	2500U	-	2500U	-	2500U	49000J	-	-	41500J	-
Sulfide	ug/L	N	NS	-	-	54U	-	610J	-	680U	-	700U	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130
			Sample Date	06/04/2004	06/04/2004	09/21/2005	09/22/2005	06/14/2006	06/15/2006	06/19/2007	06/20/2007	05/15/2008	05/16/2008	09/10/2009	09/10/2009	09/11/2009
			Field Sample ID	040604MW-130	040604MW-130	M130A4	M130A4X	M130A5	M130A5X	M130A6	M130A6X	M130A7	M130A7X	D0910091	M130A8	D0911091
			SDG	PHC06	PHC07	960339	960339	993798	993798	1043537	1043537	1091830	1091830	1161510	1161510	1161510
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	6.05	6.65	6.65	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	1.09	6.58	6.58	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-84	24	24	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	7.34	6.04	6.04	-
Alkalinity to pH 4.5	ug/L	N	NS	106000	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	9.3U	-	10U	-	10.0U	-	10.0U	-	7.2U	7.2U	-
Arsenic	ug/L	Y	3	-	9.4U	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Iron	ug/L	N	300	-	-	4440	-	2780J	-	15300	-	11700	-	-	-	-
Iron	ug/L	Y	300	-	49.5U	-	-	-	-	-	-	14100	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	40U	-	130	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	41600J	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	2100U	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130	MW-130
			Sample Date	09/11/2009	08/02/2010	08/03/2010	08/17/2011	08/18/2011	06/25/2012	06/26/2012	08/26/2013	08/27/2013	08/21/2014	08/22/2014	06/14/2016	06/15/2016	05/02/2017
			Field Sample ID	M130A8X	M130A9	M130A9X	M130B1	M130B1X	M130B2	M130B2X	M130B3	M130B3X	M130B4	M130B4X	M130B5	M130B5X	M130B6
			SDG	1161510	RFS62	RFS62	RFT60	RFT60	RFU92	RFU92	RFB98	RFB98	CS145	CS145	CS417	CS416	CS553
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	7.78	10.74	6.17	10.03	6.27	10.16	6.66	9.64	8.13	13.16	-	10.56	-
DO	mg/L	N	NS	-	2.15	2.05	4.18	8.82	3.65	1.6	0.92	1.22	3.49	4.25	-	2.55	-
ORP	millivolts	N	NS	-	-109	1	-39	106	-39	-20	-338	-195	170	107	-	-168	-
pH	pH Units	N	NS	-	8.87	5.81	6.94	6.63	7.68	6.73	6.85	6.79	6.91	6.75	-	6.99	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	200000	-	183000	-	207000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	700U	-	700U	-	1700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	200000	-	183000	-	207000	-
Arsenic	ug/L	N	3	-	9.8U	-	5.1U	-	6.8U	-	1.1J	-	0.82U	-	0.54U	-	0.69J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	0.75J	-	0.82U	-	0.54U	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	739	-	2150	-	80.5J	-	217
Iron	ug/L	Y	300	-	-	-	-	-	-	-	61.7J	-	33.4U	-	33.3U	-	74.7U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	40U	-	940	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	22700	-	50000U	-	42300	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	600U	-	1200J	-	700U	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-130	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147
			Sample Date	05/03/2017	10/21/2002	10/21/2002	03/10/2003	03/11/2003	02/18/2004	02/19/2004	09/14/2004	05/10/2005	09/29/2005	06/30/2006	11/02/2006	06/20/2007	06/16/2008
			Field Sample ID	M130B6X	M147A1X	M147A1Y	M147A2Y	M147A2X	M147A3	M147A3A	M147A4	M147A5	M147A6	M147A7	M147A8	M147A9	M147B1
			SDG	CS553	RFE33	RFE33	RFE67	RFE67	RFE97	RFE97	RFF24	RFF50	961227	995792	1012672	1043537	1096527
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.09	-	-	-	-	-	-	-	-	-	-	-	-	6.39
DO	mg/L	N	NS	5.51	4.59	4.59	4.57	-	-	-	-	-	-	-	-	-	0.97
ORP	millivolts	N	NS	137	237	237	205	-	-	-	-	-	-	-	-	-	29
pH	pH Units	N	NS	7.5	-	-	-	-	-	-	-	-	-	-	-	-	6.09
Alkalinity to pH 4.5	ug/L	N	NS	-	-	36900	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	410U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	36900	-	28600	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	1700U	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	206000	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	4.9U	-	4.9U	-	4.9U	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Iron	ug/L	N	300	-	2230	-	1800	-	3370	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	4320
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	53J	-	40U	-	-	-	40U	40U	40U	40U	40U	40U	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	395000	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	49500	-	450000	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	700U	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-147	MW-167	MW-167	MW-167	MW-167	MW-167
			Sample Date	06/17/2008	10/10/2008	09/02/2011	06/22/2012	08/28/2013	08/26/2014	11/13/2017	11/13/2017	02/28/2018	04/10/2003	04/10/2003	02/18/2004	08/12/2004	10/18/2004
			Field Sample ID	M147B1X	M147B2X	M147B3X	M147B4X	M147B5X	M147B6X	D1113178	M147C3X	M147C4X	M167A1X	M167A1Y	M167A2	M167A3	M167A4
			SDG	1096527	1114607	RFT66	RFU89	CS001	CS146	CQ880	CQ880	CS654	RFE70	RFE70	RFE97	RFF16	RFF30
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	5.91	6.18	-	6.69	-	-	-	-	-	-	-	6.7
DO	mg/L	N	NS	-	-	0.31	0.24	-	2.33	-	-	-	4.82	4.82	-	-	0.37
ORP	millivolts	N	NS	-	-	113	64	-	-297	-	-	-	69	69	-	-	-75
pH	pH Units	N	NS	-	-	5.96	5.42	-	6.12	-	-	-	-	-	-	-	6.75
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	284000	-	310000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410U	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	284000	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	4.9U	-	4.9U	12.8	6.5J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	2500	-	10600	10000	7470
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	3560
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	7200	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	40U	40U	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	109000	-	240000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167
			Sample Date	10/19/2004	01/12/2005	01/13/2005	05/18/2005	05/19/2005	07/25/2005	07/26/2005	11/29/2005	11/29/2005	02/08/2006	02/09/2006	05/01/2006	05/02/2006	07/10/2006
			Field Sample ID	M167A4X	M167A5	M167A5X	M167A6	M167A6X	M167A7	M167A7X	M167A8	M167A8X	M167A9	M167A9X	M167B1	M167B1X	M167B2
			SDG	RFF30	RFF36	RFF36	RFF54	RFF53	952791	952791	969074	969074	977634	977634	987857	987857	996873
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	6.67	-	5.78	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	2.67	-	1.79	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-177	-	168	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	6.68	-	6.02	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	401000	-	307000	-	367000	-	156000	-	113000	-	83900	-	261000	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	410U	-	410U	-	410U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	34.4	-	9.3U	-	9.3U	-	9.3U	-	9.3U	-	9.3U	-	10U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.9J	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	61300	-	10800	-	2760	-	2580	-	5060	-	8430	-	849J
Iron	ug/L	Y	300	-	4900	-	8930	-	810	-	277	-	1150	-	5750	-	411J
Methane	ug/L	N	NS	5900	-	1900	-	7500	-	150	-	1000	-	9.8	-	3700	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	120	-	40U	-	120	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	84200	-	128000	-	51200	-	82300	-	107000	-	60100	-	89100	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167
			Sample Date	07/11/2006	09/24/2007	09/25/2007	06/04/2008	06/05/2008	07/28/2009	07/29/2009	07/28/2010	07/29/2010	08/24/2011	08/25/2011	07/03/2012	07/03/2012	08/05/2013
			Field Sample ID	M167B2X	M167B3	M167B3X	M167B4	M167B4X	M167B5	M167B5X	M167B6	M167B6X	M167B7	M167B7X	M167B8	M167B8X	M167B9
			SDG	996873	1057932	1057932	1094772	1094772	1155531	1155531	RFS60	RFS60	RFT63	RFT63	RFU98	RFU98	RFB82
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	6.55	-	5	-	4.82	-	6.38	7.02	3.67	4.6	4.93	4.93	-
DO	mg/L	N	NS	-	0.58	-	0.2	-	2.34	-	0.75	0	0.52	0.16	0.84	0.84	-
ORP	millivolts	N	NS	-	62	-	53	-	-57	-	-121	-128	-60	133	-93	-93	-
pH	pH Units	N	NS	-	6.27	-	6.76	-	6.40	-	6.69	7.51	7.05	6.66	7.63	7.63	-
Alkalinity to pH 4.5	ug/L	N	NS	145000	-	241000	-	162000	-	181000	-	260000	-	141000	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	700U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	155000	-
Arsenic	ug/L	N	3	-	10.0U	-	10.2U	-	7.2U	-	10.1J	-	5.1U	-	6.8U	-	8.0
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	6.1
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	2240	-	2860	-	1750	-	4920	-	859	-	2440	-	7510
Iron	ug/L	Y	300	-	262	-	208	-	982	-	4470	-	14.1U	-	1260	-	3970
Methane	ug/L	N	NS	94	-	260	-	610	-	120	-	5100	-	22	-	3300	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	66100	-	98100	-	49900	-	26900	-	99900	-	44800	-	38300	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-167	MW-168	MW-168	MW-168	MW-168
			Sample Date	08/06/2013	08/11/2014	08/12/2014	12/02/2015	12/03/2015	04/27/2016	04/28/2016	06/14/2017	06/15/2017	05/09/2018	04/17/2003	04/17/2003	02/09/2004	02/09/2004
			Field Sample ID	M167B9X	M167C1	M167C1X	M167C2	M167C2X	M167C3	M167C3X	M167C4	M167C4X	M167C5	M168A1X	M168A1Y	M168A2	M168A2
			SDG	RFB82	CS140	CS140	CS323	CS323	CS392	CS392	CS573	CS573	CR055	RFE71	RFE71	RFE96	RFF16
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	5.82	6.24	-	13.23	-	-	-	5.78	-	-	-	-	-
DO	mg/L	N	NS	-	2.52	1.37	-	1.01	-	-	-	1.64	-	6.09	6.09	-	-
ORP	millivolts	N	NS	-	-315	-244	-	457	-	-	-	-55	-	60	60	-	-
pH	pH Units	N	NS	-	7.42	6.92	-	6.78	-	-	-	7.81	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	206000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	410U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	244000	-	312000	-	331000	-	327000	-	380000	-	-	206000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	700U	-	700U	-	1700U	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	244000	-	312000	-	331000	-	327000	-	380000	-	-	-	-	-
Arsenic	ug/L	N	3	-	6.0	-	10.6	-	2.6	-	1.7J	-	-	4.9U	-	4.9U	22.6
Arsenic	ug/L	Y	3	-	5.0	-	6.0	-	1.8J	-	1.4J	-	4.5	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	5U	-	0.5U	-	-	0.5U	-	-
Iron	ug/L	N	300	-	5390	-	3060	-	1860	-	905	-	-	2600	-	8880	52300
Iron	ug/L	Y	300	-	4390	-	1600	-	1030	-	921	-	-	-	-	-	-
Methane	ug/L	N	NS	250	-	4000	-	760	-	1000	-	2100	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	41J	-	52J	-	84J	-	-	0.040U	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	2500U	-	113000	-	74200	-	68900	-	39900	-	-	82900	-	-
Sulfide	ug/L	N	NS	600U	-	600U	-	680U	-	700U	-	700U	-	-	-	-	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168
			Sample Date	02/10/2004	07/15/2004	10/07/2004	10/08/2004	02/22/2005	02/23/2005	05/05/2005	05/05/2005	07/18/2005	07/19/2005	11/30/2005	12/01/2005	02/15/2006	02/16/2006
			Field Sample ID	M168A2A	M168A3	M168A4	M168A4X	M168A5	M168A5X	M168A6	M168A6X	M168A7	M168A7X	M168A8	M168A8X	M168A9	M168A9X
			SDG	RFE96	RFF16	RFF29	RFF29	RFF39	RFF39	RFF49	RFF49	951863	951863	969425	969425	978446	978446
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	9.54	-	-	-	6.48	6.48	-	5.71	-	-	-	-
DO	mg/L	N	NS	-	-	0.3	-	-	-	2.36	2.36	-	1.96	-	-	-	-
ORP	millivolts	N	NS	-	-	-113	-	-	-	-201	-201	-	-207	-	-	-	-
pH	pH Units	N	NS	-	-	6.50	-	-	-	6.83	6.83	-	6.62	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	234000	-	233000	-	201000	-	196000	-	223000	-	236000	-	208000
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	410U	-	410U	-	410U	-	410U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	6.3J	-	7.8J	-	9.3U	-	9.4J	-	9.3U	-	9.3J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	6320	-	19100	-	19000	-	18900	-	17400	-	23400	-
Iron	ug/L	Y	300	-	-	5930	-	15900	-	15500	-	15600	-	11900	-	13500	-
Methane	ug/L	N	NS	-	2200	-	76	-	4200	-	1900	-	2400	-	29	-	19
Nitrogen, Nitrate as N	ug/L	N	10000	40U	40U	-	750	-	40U	-	40U	-	40U	-	80J	-	52J
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	35300	-	27900	-	40400	-	36100	-	10300	-	38700	-	35500
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168
			Sample Date	05/01/2006	05/02/2006	07/18/2006	07/19/2006	05/29/2008	05/30/2008	09/01/2009	09/02/2009	07/27/2010	07/27/2010	08/24/2011	08/25/2011	06/18/2012	06/19/2012
			Field Sample ID	M168B1	M168B1X	M168B2	M168B2X	M168B3	M168B3X	M168B4	M168B4X	M168B5	M168B5X	M168B6	M168B6X	M168B7	M168B7X
			SDG	987857	987857	998044	998044	1093788	1093788	1160329	1160329	RFS58	RFS58	RFT63	RFT63	RFU85	RFU85
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	6.51	-	-	-	7.36	7.36	6.22	6.46	6.52	8.74
DO	mg/L	N	NS	-	-	-	-	0.92	-	-	-	0	0	14.08	0.22	1.58	3.21
ORP	millivolts	N	NS	-	-	-	-	-188	-	-	-	-166	-166	-75	208	-193	77
pH	pH Units	N	NS	-	-	-	-	6.71	-	-	-	7.16	7.16	6.89	6.58	8.40	6.22
Alkalinity to pH 4.5	ug/L	N	NS	-	191000	-	208000	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	9.3U	-	10U	-	10.2U	-	7.2U	-	9.8U	-	5.1U	-	29.9	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	19100	-	23400J	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	19100	-	22100J	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	4.9J	-	2.0U	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	230	-	230	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	32400	-	22300	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-168	MW-169R	MW-169R	MW-169R	MW-169R
			Sample Date	06/12/2013	07/31/2013	08/01/2013	08/12/2014	08/13/2014	12/01/2015	12/02/2015	09/14/2016	06/15/2017	06/16/2017	04/29/2003	06/16/2003	07/02/2003	02/09/2004
			Field Sample ID	M168B8X	M168B9	M168B9X	M168C1	M168C1X	M168C2	M168C2X	M168C3	M168C4	M168C4X	M169RA	M169RA2	M169RA3	M169RA4
			SDG	RFZ94	RFB78	RFB78	CS141	CS141	CS322	CS322	CS454	CS574	CS574		RFE77	RFE80	RFE96
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.25	6.52	6.23	11.6	14.8	-	14.76	15.71	-	15.02	-	-	-	-
DO	mg/L	N	NS	9.31	0.08	0.02	1.62	-	-	3.79	-	-	9.79	1.04	1.91	-	-
ORP	millivolts	N	NS	-37.7	-149	-182	169	-	-	-121	-	-	89	-32	58	-	-
pH	pH Units	N	NS	6.94	6.78	6.58	6.81	-	-	7.26	-	-	8.33	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	219000	148000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410	410U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	200000	-	319000	-	348000	-	-	310000	219000	148000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	700U	-	700U	-	-	1700U	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	200000	-	319000	-	348000	-	-	310000	-	-	-	-
Arsenic	ug/L	N	3	-	14.3	-	0.82U	-	0.57J	-	1.1J	0.68U	-	4.9	4.9U	-	5.8J
Arsenic	ug/L	Y	3	-	13.0	-	0.82U	-	0.54U	-	7.8	0.68U	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	2	0.5U	2J	1J
Iron	ug/L	N	300	-	20700	-	306	-	579	-	11800	858	-	2700	2470	-	2030
Iron	ug/L	Y	300	-	18200	-	33.4U	-	39.8J	-	6970	74.7U	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	2700	-	2300	-	-	2300	40	40U	-	2000
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	19400	-	73600J	-	10000U	-	-	79600	59500	30700	-	-
Sulfide	ug/L	N	NS	-	-	600U	-	2400U	-	-	-	-	700U	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R
			Sample Date	07/15/2004	10/07/2004	10/08/2004	02/22/2005	02/23/2005	05/05/2005	05/05/2005	07/18/2005	07/19/2005	12/05/2005	12/06/2005	02/17/2006	02/17/2006	05/01/2006
			Field Sample ID	M169RA5	M169RA6	M169RA6X	M169RA7	M169RA7X	M169RA8	M169RA8X	M169RA9	M169RA9X	M169RB1	M169RB1X	M169RB2	M169RB2X	M169RB3
			SDG	RFF16	RFF29	RFF29	RFF39	RFF39	RFF49	RFF49	951863	951863	970020	970020	978621	978621	987857
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	18.4	-	-	-	18.18	18.18	18.32	-	-	-	-	-	-
DO	mg/L	N	NS	-	0.95	-	-	-	2.27	2.27	1.94	-	-	-	-	-	-
ORP	millivolts	N	NS	-	28	-	-	-	70	70	193	-	-	-	-	-	-
pH	pH Units	N	NS	-	6.15	-	-	-	5.67	5.67	5.76	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	237000	-	265000	-	247000	-	251000	-	250000	-	234000	-	238000	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	410U	-	410U	-	410U	-	410U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.7U	4.7U	-	4.7U	-	9.3U	-	9.3U	-	9.3U	-	9.3U	-	9.3U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	2J	-	1J	-	2J	-	2J	-	1J	-	1J	-	2J	-
Iron	ug/L	N	300	8060	693	-	6200	-	1010	-	786	-	3860	-	2140	-	2570
Iron	ug/L	Y	300	-	373	-	463	-	153J	-	257	-	4200	-	146J	-	1760
Methane	ug/L	N	NS	1300	-	1200	-	1700	-	840	-	1000	-	920	-	820	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	37200	-	37400	-	43800	-	41600	-	43200	-	49500	-	50900	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R
			Sample Date	05/02/2006	07/18/2006	07/19/2006	10/01/2007	10/02/2007	06/02/2008	06/03/2008	08/19/2009	08/20/2009	08/02/2010	08/03/2010	09/06/2011	09/07/2011	06/27/2012
			Field Sample ID	M169RB3X	M169RB4	M169RB4X	M169RB5	M169RB5X	M169RB6	M169RB6X	M169RB7	M169RB7X	M169RB8	M169RB8X	M169RB9	M169RB9X	M169RC1
			SDG	987857	998044	998044	1059087	1059087	1094218	1094218	1158618	1158618	RFS62	RFS62	RFT67	RFT67	RFU94
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	18.36	-	18.228	-	18.41	18.84	17.99	18.44	18.26
DO	mg/L	N	NS	-	-	-	-	-	0	-	6.36	-	0	0.25	0.1	0.09	0.86
ORP	millivolts	N	NS	-	-	-	-	-	13	-	72	-	-64	56	70	180	56
pH	pH Units	N	NS	-	-	-	-	-	6.89	-	5.94	-	8.30	5.61	6.44	6.35	7.01
Alkalinity to pH 4.5	ug/L	N	NS	259000	-	242000	-	263000	-	244000	-	239000	-	254000	-	228000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10U	-	10.4J	-	10.2U	-	7.2U	-	9.8U	-	5.1U	-	6.8U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1J	-	1J	-	1J	-	1J	-	0.8J	-	1J	-	1J	-
Iron	ug/L	N	300	-	2830J	-	908	-	762	-	283	-	4590	-	2250	-	143J
Iron	ug/L	Y	300	-	450J	-	262	-	587	-	212	-	4810	-	1520	-	132J
Methane	ug/L	N	NS	690	-	1300	-	920	-	640	-	620	-	660	-	340	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	470	-	40U	-	40U	-	40U	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	38300	-	42700	-	25600	-	37600	-	36700	-	36400	-	36600	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R
			Sample Date	06/28/2012	06/14/2013	06/14/2013	06/14/2013	07/31/2013	08/01/2013	06/23/2014	06/24/2014	06/24/2014	08/26/2014	08/26/2014	08/26/2014	08/26/2014	10/27/2014
			Field Sample ID	M169RC1X	M169RC2	M169RC2X	M169RC2X	M169RC3	M169RC3X	M169RC4	M169RC4X	M169RC4X	M169RC5	M169RC5	M169RC5X	M169RC5X	M169RC7
			SDG	RFU94	CP001	CP001		RFB78	RFB78	CP378	CP383		CP483	CS141	CP483	CS141	CP563
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	18.7	18.53	18.53	18.53	18.42	18.57	17.1	-	-	17.35	17.35	17.35	17.35	17.84
DO	mg/L	N	NS	0	4.81	4.81	4.81	0.39	-0.02	0.41	-	-	9.44	9.44	9.44	9.44	0.05
ORP	millivolts	N	NS	64	48.4	48.4	48.4	-182	-294	-102.9	-	-	-83.6	-83.6	-83.6	-83.6	-100.5
pH	pH Units	N	NS	5.94	6.27	6.27	6.27	6.06	6.54	6.63	-	-	6.60	6.60	6.60	6.60	6.74
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	700U	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	224000	-	-	-	-	-	-	415000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	-	700U	-	-	-	-	-	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	234000	-	248000	-	-	224000	-	432000	-	-	-	423000	415000	-
Arsenic	ug/L	N	3	-	-	-	-	0.45J	-	-	-	-	-	16.0	-	-	-
Arsenic	ug/L	Y	3	-	2.5	-	-	0.48J	-	15.2	-	-	18.1	15.8	-	-	29.7
Benzene	ug/L	N	1	0.8J	-	0.8J	-	-	0.7J	-	0.7J	-	-	-	0.9J	0.9J	-
Iron	ug/L	N	300	-	-	-	-	94.0J	-	-	-	-	-	47100	-	-	-
Iron	ug/L	Y	300	-	-	-	-	81.7J	-	-	-	-	-	47500	-	-	-
Methane	ug/L	N	NS	730	-	-	860	-	550	-	-	10000	-	-	-	17000	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	-	40U	-	-	-	-	-	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	33900	-	28200	-	-	24700	-	14900	-	-	-	15100	10000U	-
Sulfide	ug/L	N	NS	-	-	54U	-	-	600U	-	600U	-	-	-	600U	600U	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R	MW-169R
			Sample Date	10/27/2014	10/27/2014	10/27/2014	01/14/2015	01/14/2015	01/14/2015	01/14/2015	04/27/2015	04/27/2015	04/27/2015	07/13/2015	07/13/2015	07/13/2015	10/13/2015
			Field Sample ID	M169RC7X	M169RC7X	M169RC7X	M169RC9	M169RC9X	M169RC9X	M169RC9X	M169RD1	M169RD1X	M169RD1X	M169RD2	M169RD2X	M169RD2X	M169RD3
			SDG	1525659	CP563		CP637	1533694	CP637		CP694	1591054	CP694	CP777	1579560	CP777	CP876
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	17.84	17.84	17.84	17.45	17.45	17.45	17.45	18.71	18.71	18.71	19.71	19.71	19.71	18.85
DO	mg/L	N	NS	0.05	0.05	0.05	1.23	1.23	1.23	1.23	4.7	4.7	4.7	9.88	9.88	9.88	3.05
ORP	millivolts	N	NS	-100.5	-100.5	-100.5	-74.2	-74.2	-74.2	-74.2	-146.7	-146.7	-146.7	-19.8	-19.8	-19.8	-107.4
pH	pH Units	N	NS	6.74	6.74	6.74	6.95	6.95	6.95	6.95	6.63	6.63	6.63	6.88	6.88	6.88	6.09
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	502000	-	-	-	428000	-	-	-	376000	-	-	356000	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	18.4	-	-	-	15.4	-	-	13.7	-	-	13.2
Benzene	ug/L	N	1	-	0.7J	-	-	-	0.8J	-	-	-	0.7J	-	-	0.8J	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	16000.00	-	16000	-	15000.00	-	15000	-	12000.00n	-	-	12000.00n	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	11500	-	-	-	7000	-	-	-	9700	-	-	6600	-
Sulfide	ug/L	N	NS	-	2400	-	-	-	600U	-	-	-	680U	-	-	680U	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-169R	MW-169R	MW-169R	MW-169R	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170
			Sample Date	10/13/2015	10/13/2015	11/06/2017	11/07/2017	04/16/2003	04/16/2003	02/17/2004	02/18/2004	07/15/2004	10/11/2004	10/12/2004	01/06/2005	01/06/2005	05/18/2005
			Field Sample ID	M169RD3X	M169RD3X	M169RD9	M169RD9X	M170A1X	M170A1Y	M170A2	M170A2A	M170A3	M170A4	M170A4X	M170A5	M170A5X	M170A6
			SDG	1604059	CP876	CQ868	CQ870	RFE71	RFE71	RFE97	RFE97	RFF16	RFF29	RFF29	RFF35	RFF35	RFF54
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	18.85	18.85	-	21.43	-	-	-	-	-	9.55	-	-	-	9.66
DO	mg/L	N	NS	3.05	3.05	-	1.26	2.37	2.37	-	-	-	0.95	-	-	-	3.53
ORP	millivolts	N	NS	-107.4	-107.4	-	-101.7	197	197	-	-	-	210	-	-	-	222
pH	pH Units	N	NS	6.09	6.09	-	6.76	-	-	-	-	-	5.3	-	-	-	5.16
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	16500	-	-	8800	-	14600	-	25500	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	410U	-	-	410U	-	410U	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	311000	-	16500	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	360000	-	311000	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	4.9U	-	4.9U	-	4.7U	4.7U	-	4.7U	-	9.3U
Arsenic	ug/L	Y	3	-	-	10	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.6J	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	-	11100	-	210	-	1550	-	661	600	-	1050	-	988
Iron	ug/L	Y	300	-	-	10200	-	-	-	-	-	-	49.5U	-	49.5U	-	40.3J
Methane	ug/L	N	NS	9400.00n	-	-	-	-	-	-	-	2.0U	-	7.3	-	3.0J	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	0.69	-	120	1500	-	210	-	800	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	8500	-	22800J-	-	75000	-	-	56800	-	56300	-	35400	-
Sulfide	ug/L	N	NS	-	680U	-	700U	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170
			Sample Date	05/19/2005	07/28/2005	07/28/2005	12/15/2005	12/16/2005	02/23/2006	02/24/2006	05/10/2006	05/10/2006	07/20/2006	07/21/2006	06/11/2008	06/12/2008	10/10/2008
			Field Sample ID	M170A6X	M170A7	M170A7X	M170A8	M170A8X	M170A9	M170A9X	M170B1	M170B1X	M170B2	M170B2X	M170B4	M170B4X	M170B5
			SDG	RFF53	953193	953193	971536	971536	979428	979428	989100	989100	998385	998385	1095834	1095834	1114607
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	10.42	10.42	-	-	-	-	-	-	-	-	9.45	-	9.39
DO	mg/L	N	NS	-	2.65	2.65	-	-	-	-	-	-	-	-	1.22	-	0
ORP	millivolts	N	NS	-	139	139	-	-	-	-	-	-	-	-	288	-	234
pH	pH Units	N	NS	-	5.12	5.12	-	-	-	-	-	-	-	-	4.86	-	5.3
Alkalinity to pH 4.5	ug/L	N	NS	13200	-	8500	-	12700	-	10700	-	12800	-	21500	-	13500	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	410U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.3U	-	9.3U	-	9.3U	-	9.3U	-	10U	-	10.2U	-	10.2U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	355	-	810	-	763	-	240	-	1270J	-	1550	-	577
Iron	ug/L	Y	300	-	37.8U	-	37.8U	-	66.7U	-	66.7U	-	52.2U	-	52.2U	-	52.2U
Methane	ug/L	N	NS	2.0U	-	2.0U	-	2.0U	-	2.0U	-	2.0U	-	2.0U	-	2.0U	-
Nitrogen, Nitrate as N	ug/L	N	10000	98J	-	2200	-	4500	-	890	-	1000	-	320	-	670	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	44500	-	56300	-	32000J	-	48600J	-	89400	-	69000	-	50000U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170
			Sample Date	10/10/2008	08/19/2009	08/20/2009	11/04/2009	11/05/2009	06/21/2010	06/22/2010	10/26/2010	10/26/2010	09/01/2011	09/02/2011	12/07/2011	12/08/2011
			Field Sample ID	M170B5X	M170B6	M170B6X	M170B7	M170B7X	M170B8-100621	M170B8X-100622	M170B9	M170B9X	M170C1	M170C1X	M170C2	M170C2X
			SDG	1114607	1158618	1158618	1169793	1169793	RFS48	RFS48	RFS75	RFS75	RFT66	RFT66	RFT91	RFT91
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.39	9.45	-	9.15	-	0	11.12	9.56	9.56	7.83	9.01	9.13	3.51
DO	mg/L	N	NS	0	6.12	-	5.12	-	4.2	0	0.6	0.6	6.93	0.33	7.17	5.65
ORP	millivolts	N	NS	234	225	-	231	-	121	0	295	295	209	234	281	230
pH	pH Units	N	NS	5.3	4.84	-	5.53	-	5.43	0	4.94	4.94	5.53	5.49	5.34	5.8
Alkalinity to pH 4.5	ug/L	N	NS	8700	-	12100	-	14200	-	11900	-	8900	-	12400	-	17200
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	7.2U	-	7.2U	-	9.8U	-	9.8U	-	5.1U	-	5.1U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	309	-	808	-	1500	-	107J	-	298	-	155J	-
Iron	ug/L	Y	300	-	52.2U	-	52.2U	-	136J	-	52.2U	-	33.0J	-	14.1U	-
Methane	ug/L	N	NS	-	-	5.0U	-	5.0J	-	5.0U	-	10U	-	5.0U	-	5.0U
Nitrogen, Nitrate as N	ug/L	N	10000	2800	-	1700	-	770	-	600	-	840	-	480	-	51J
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	31700J	-	30000	-	25000U	-	31300	-	88700	-	37600	-	20900
Sulfide	ug/L	N	NS	530U	-	-	-	-	-	-	-	-	-	-	-	530U

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-170	MW-183	MW-183	MW-183	MW-183
			Sample Date	06/27/2012	06/28/2012	09/10/2012	09/11/2012	08/07/2013	08/08/2013	10/31/2013	10/31/2013	11/01/2013	11/01/2013	02/03/2004	02/04/2004	07/08/2004	10/20/2004
			Field Sample ID	M170C3	M170C3X	M170C4	M170C4X	M170C5	M170C5X	D1031131	M170C6	D1101131	M170C6X	M183A1	M183A1A	M183A2	M183A3
			SDG	RFU94	RFU94	RFV40	RFV40	RFB85	RFB85	CS037	CS037	CS037	CS037	RFE96	RFE96	RFF16	RFF31
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.75	9.01	9.91	10.8	0.0228436	-	-	-	-	-	-	-	-	4.63
DO	mg/L	N	NS	1.48	4.24	6.3	4.83	5.24	-	-	-	-	-	-	-	-	0.35
ORP	millivolts	N	NS	188	264	248	286	3	-	-	-	-	-	-	-	-	-37
pH	pH Units	N	NS	6.18	4.7	5.19	4.43	111.91	-	-	-	-	-	-	-	-	5.91
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	45500	-
Alkalinity to pH 8.3	ug/L	N	NS	-	700U	-	700U	-	-	-	-	-	-	-	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	13200	-	17300	-	-	14800	14500	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	700U	-	-	700U	700U	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	12400	-	13200	-	17300	-	-	14800	14500	-	-	-	-
Arsenic	ug/L	N	3	-	-	0.44J	-	0.65J	-	0.78U	0.78U	-	-	4.9U	-	4.7U	4.7U
Arsenic	ug/L	Y	3	-	-	0.63J	-	0.64J	-	0.78U	0.78U	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	0.5U	-	0.5U	0.5U	-
Iron	ug/L	N	300	96.9J	-	69.4J	-	192J	-	57.3J	68.3J	-	-	89400	-	172000	190000
Iron	ug/L	Y	300	33.3U	-	33.3U	-	54.6J	-	43.0U	43.0U	-	-	-	-	-	192000
Methane	ug/L	N	NS	-	5.0U	-	5.0U	-	3.0U	-	-	3.0U	3.0U	-	-	10	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	1100	-	40U	-	41J	-	-	40U	200U	-	140	200U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	37400	-	37300	-	34500	-	-	42800	43600	-	-	276000	-
Sulfide	ug/L	N	NS	-	-	-	600U	-	600U	-	-	600U	600U	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183
			Sample Date	10/21/2004	01/04/2005	01/05/2005	05/16/2005	05/17/2005	07/26/2005	07/27/2005	11/28/2005	11/29/2005	02/08/2006	02/09/2006	04/25/2006	04/26/2006	07/06/2006
			Field Sample ID	M183A3X	M183A4	M183A4X	M183A5	M183A5X	M183A6	M183A6X	M183A7	M183A7X	M183A8	M183A8X	M183A9	M183A9X	M183B1
			SDG	RFF31	RFF35	RFF35	RFF51	RFF52	952987	952987	969074	969074	977634	977634	987154	987154	996484
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	4.81	4.57	-	4.78	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	2.7	3.33	-	2.16	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	270	24	-	256	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	3.65	4.95	-	3.28	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	410U	-	410U	-	50300	-	3300	-	460U	-	460U	-	460U	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	410U	-	410U	-	410U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	4.7U	-	9.3U	-	9.3U	-	9.3U	-	9.3U	-	9.3U	-	10U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	42800	-	154000	-	160000	-	131000	-	164000	-	142000	-	205000J
Iron	ug/L	Y	300	-	35300	-	131000	-	161000	-	133000	-	152000	-	133000	-	194000J
Methane	ug/L	N	NS	2.0U	-	5.5	-	4.3J	-	2.8J	-	5.9	-	2.0U	-	4.3J	-
Nitrogen, Nitrate as N	ug/L	N	10000	1000U	-	40U	-	200U	-	40U	-	40U	-	47J	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	267000	-	246000	-	296000	-	264000	-	234000	-	276000	-	358000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-183	MW-184	MW-184	MW-184
			Sample Date	07/07/2006	05/22/2008	07/24/2009	08/03/2010	08/23/2011	06/19/2012	08/08/2013	09/14/2016	09/15/2016	06/14/2017	06/15/2017	02/04/2004	02/05/2004	07/14/2004
			Field Sample ID	M183B1X	M183B2X	M183B3X	M183B4X	M183B5X	M183B6X	M183B7X	M183B8	M183B8X	M183B9	M183B9X	M184A1	M184A1A	M184A2
			SDG	996484	1092717	1154932	RFS62	RFT62	RFU85	RFB85	CS454	CS454	CS573	CS573	RFE96	RFE96	RFF16
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	4.36	4.41	-	4.8	9.36	-	-	7.37	-	6.98	-	-	-
DO	mg/L	N	NS	-	0.82	2.17	-	3.1	0.4	-	-	3.56	-	1.88	-	-	-
ORP	millivolts	N	NS	-	69	47	-	190	59	-	-	-86	-	-92	-	-	-
pH	pH Units	N	NS	-	4.72	5.42	-	4.71	5.29	-	-	6.64	-	7.97	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	460U	-	-	-	-	-	-	-	-	-	-	-	-	470000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	-	-	-	-	-	-	-	-	-	-	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	1700U	-	1700U	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	1700U	-	1700U	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	1700U	-	1700U	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	0.68U	-	0.68U	-	7.0J	-	4.7U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	0.68U	-	0.68U	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	4J	4J
Iron	ug/L	N	300	-	-	-	-	-	-	-	156000	-	-	-	52700	-	111000
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	2.0U	-	-	-	-	-	-	-	-	-	-	-	-	9600
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	-	-	-	-	40U	-	40U	-	40U	56J
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	260000	-	-	-	-	-	-	-	323000	-	318000	-	-	38200J
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	700U	-	700U	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184
			Sample Date	10/11/2004	10/12/2004	01/12/2005	01/13/2005	05/11/2005	05/12/2005	07/20/2005	07/21/2005	11/30/2005	12/01/2005	02/21/2006	02/22/2006	05/08/2006	05/09/2006
			Field Sample ID	M184A3	M184A3X	M184A4	M184A4X	M184A5	M184A5X	M184A6	M184A6X	M184A7	M184A7X	M184A8	M184A8X	M184A9	M184A9X
			SDG	RFF29	RFF29	RFF36	RFF36	RFF50	RFF50	952296	952296	969425	969425	979093	979093	988894	988894
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	22.8	-	-	-	23.25	-	23.24	-	-	-	-	-	-	-
DO	mg/L	N	NS	0.53	-	-	-	2.85	-	1.48	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-77	-	-	-	-140	-	-108	-	-	-	-	-	-	-
pH	pH Units	N	NS	6.26	-	-	-	6.26	-	5.88	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	461000	-	549000	-	533000	-	464000	-	574000	-	458000	-	410000
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	410U	-	410U	-	410U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	6.0J	-	8.8J	-	9.3U	-	9.3U	-	9.3U	-	9.3U	-	9.3U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	3J	-	5U	-	3J	-	3J	-	3J	-	3J	-	3J
Iron	ug/L	N	300	115000	-	96900	-	96600	-	89200	-	82800	-	86600	-	95600	-
Iron	ug/L	Y	300	105000	-	99800	-	98500	-	80500	-	81400	-	88100	-	114000	-
Methane	ug/L	N	NS	-	7700	-	15000	-	7300	-	5700	-	8300	-	8300	-	6300
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	800U	-	40U	-	40U	-	40U	-	110
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	65500	-	7500U	-	30000U	-	40200J	-	20700	-	64600	-	110000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184	MW-184
			Sample Date	07/20/2006	07/21/2006	05/27/2008	05/28/2008	08/17/2009	08/18/2009	07/26/2010	07/27/2010	08/30/2011	08/31/2011	06/26/2012	06/27/2012	06/16/2013	06/16/2013
			Field Sample ID	M184B1	M184B1X	M184B2	M184B2X	M184B3	M184B3X	M184B4	M184B4X	M184B5	M184B5X	M184B7	M184B7X	M184B8	M184B8X
			SDG	998385	998385	1093320	1093320	1158153	1158153	RFS58	RFS58	RFT65	RFT65	RFU93	RFU93	CP001	CP001
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	22.95	-	23.32	-	23.63	22.12	22.57	22.84	22.51	23.63	23.23	23.23
DO	mg/L	N	NS	-	-	4.38	-	5.08	-	4.29	0	0.22	0.37	1.31	0	0.07	0.07
ORP	millivolts	N	NS	-	-	-139	-	-105	-	-102	-101	-60	-30	-41	-114	-85.1	-85.1
pH	pH Units	N	NS	-	-	6.08	-	6.17	-	7.06	6.77	6.50	6.27	7.71	6.70	6.46	6.46
Alkalinity to pH 4.5	ug/L	N	NS	-	454000	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	474000
Arsenic	ug/L	N	3	10U	-	10.2U	-	7.2U	-	9.8U	-	10.1J	-	15.1J	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	4.4	-
Benzene	ug/L	N	1	-	4J	-	3J	-	3J	-	3J	-	3J	-	3J	-	2J
Iron	ug/L	N	300	101000J	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	91500J	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	4900	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	-	-	-	-	-	-	-	-	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	67400	-	-	-	-	-	-	-	-	-	-	-	25000U
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	54U

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-184	MW-184	MW-184	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185
			Sample Date	06/16/2013	08/07/2013	08/08/2013	02/04/2004	02/05/2004	07/14/2004	07/14/2004	10/07/2004	10/08/2004	01/12/2005	01/13/2005	05/11/2005	05/12/2005	07/19/2005
			Field Sample ID	M184B8X	M184B9	M184B9X	M185A1	M185A1A	M185A2	M185A2	M185A3	M185A3X	M185A4	M185A4X	M185A5	M185A5X	M185A6
			SDG		RFB85	RFB85	RFE96	RFE96	RFF16	RFF17	RFF29	RFF29	RFF36	RFF36	RFF50	RFF50	951863
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	23.23	-	-	-	-	-	-	17.6	-	-	-	17.35	-	-
DO	mg/L	N	NS	0.07	-	-	-	-	-	-	0.3	-	-	-	5.75	-	-
ORP	millivolts	N	NS	-85.1	-	-	-	-	-	-	-149	-	-	-	-3	-	-
pH	pH Units	N	NS	6.46	-	-	-	-	-	-	8.37	-	-	-	7.47	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	288000	-	213000	-	224000	-	214000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	53600	-	410U	-	410U	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	458000	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	458000	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	6.1	-	18.0	-	26.1	-	4.7U	-	4.9J	-	9.3U	-	9.3U
Arsenic	ug/L	Y	3	-	5.5	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	-	2J	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	67000	-	4760	-	9670	-	112J	-	176J	-	137J	-	458
Iron	ug/L	Y	300	-	68200	-	-	-	-	-	49.5U	-	105J	-	37.8U	-	37.8U
Methane	ug/L	N	NS	7500	-	-	-	-	-	14	-	11	-	24	-	17	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	60J	-	40U	-	200U	-	40U	-	40U	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	13000J	-	-	-	75000U	-	35500	-	37500	-	27400	-
Sulfide	ug/L	N	NS	-	-	600U	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185	MW-185
			Sample Date	07/19/2005	12/06/2005	12/06/2005	02/21/2006	02/22/2006	05/01/2006	05/02/2006	07/18/2006	07/19/2006	06/16/2013	06/16/2013	10/21/2015	10/21/2015	11/09/2017
			Field Sample ID	M185A6X	M185A7	M185A7X	M185A8	M185A8X	M185A9	M185A9X	M185B1	M185B1X	M185B8	M185B8X	M185C1X	M185C1X	M185C8
			SDG	951863	970020	970020	979093	979093	987857	987857	998044	998044	CP001	CP001	1606862	CP896	CQ876
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	33.5	33.5	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	7.49	7.49	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	-97	-97	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	8.23	8.23	-
Alkalinity to pH 4.5	ug/L	N	NS	235000	-	260000	-	213000	-	227000	-	211000	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	460U	-	460U	-	460U	-	460U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	199000	-
Arsenic	ug/L	N	3	-	11.6J	-	9.3U	-	9.3U	-	10U	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	2.9	-	-	-	1.8J
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	1760	-	66.9J	-	104J	-	259J	-	-	-	-	-	-
Iron	ug/L	Y	300	-	1600	-	66.7U	-	66.7U	-	78.2J	-	-	-	-	-	80.5U
Methane	ug/L	N	NS	14	-	12	-	11	-	9.6	-	15	-	-	320.00n	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	26400	-	11200J	-	26500	-	24500	-	21000	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-185	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186
			Sample Date	11/10/2017	02/05/2004	07/15/2004	10/07/2004	10/08/2004	02/22/2005	02/23/2005	05/05/2005	05/05/2005	07/18/2005	07/19/2005	12/05/2005	12/06/2005	02/17/2006
			Field Sample ID	M185C8X	M186A1	M186A2	M186A3	M186A3X	M186A4	M186A4X	M186A5	M186A5X	M186A6	M186A6X	M186A7	M186A7X	M186A8
			SDG	CQ878	RFE96	RFF16	RFF29	RFF29	RFF39	RFF39	RFF49	RFF49	951863	951863	970020	970020	978621
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	20.5	-	-	1.99	-	-	-	1.9	1.9	1.69	-	-	-	-
DO	mg/L	N	NS	5.4	-	-	0.55	-	-	-	3.78	3.78	2.2	-	-	-	-
ORP	millivolts	N	NS	-150.4	-	-	-33	-	-	-	54	54	96	-	-	-	-
pH	pH Units	N	NS	10.60	-	-	7.18	-	-	-	6.67	6.67	6.57	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	87800	-	77200	-	72300	-	75300	-	85300	-	76300	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	410U	-	410U	-	410U	-	410U	-	410U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	175000	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	2.4	4.9U	4.8J	5.5J	-	4.7U	-	9.3U	-	9.3U	-	9.3U	-	9.3U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	201	305	877	592	-	494	-	555	-	288	-	1160	-	194J
Iron	ug/L	Y	300	-	-	-	49.5U	-	49.5U	-	37.8U	-	37.8U	-	37.8U	-	66.7U
Methane	ug/L	N	NS	-	-	150	-	42	-	9.7	-	19	-	49	-	2.0U	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	560	530	-	67J	-	680	-	500	-	610	-	360	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	12200	-	7300	-	18200	-	11400	-	11700	-	13900	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186
			Sample Date	02/17/2006	05/08/2006	05/09/2006	07/18/2006	07/19/2006	10/03/2007	10/04/2007	05/27/2008	05/28/2008	08/19/2009	08/20/2009	08/02/2010	08/03/2010	09/06/2011
			Field Sample ID	M186A8X	M186A9	M186A9X	M186B1	M186B1X	M186B2	M186B2X	M186B3	M186B3X	M186B4	M186B4X	M186B5	M186B5X	M186B6
			SDG	978621	988894	988894	998044	998044	1059557	1059557	1093320	1093320	1158618	1158618	RFS62	RFS62	RFT67
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	1.7	-	1.68	-	2.22	3.38	1.16
DO	mg/L	N	NS	-	-	-	-	-	-	-	3.2	-	5.63	-	0.3	5.8	14.3
ORP	millivolts	N	NS	-	-	-	-	-	-	-	135	-	89	-	-35	160	103
pH	pH Units	N	NS	-	-	-	-	-	-	-	6.32	-	6.54	-	8.18	5.79	7.19
Alkalinity to pH 4.5	ug/L	N	NS	71400	-	102000	-	98100	-	128000	-	70100	-	96000	-	122000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.3U	-	10U	-	11.0J	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	445	-	52.2U	-	96.0J	-	218	-	147J	-	176J	-	158J
Iron	ug/L	Y	300	-	66.7U	-	52.2U	-	52.2U	-	52.2U	-	52.2U	-	72.2J	-	77.4J
Methane	ug/L	N	NS	39	-	4.8J	-	100	-	2.0U	-	23	-	44	-	12J	-
Nitrogen, Nitrate as N	ug/L	N	10000	650	-	40U	-	380	-	40U	-	900	-	250	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	13300	-	17600	-	14000	-	25000	-	10900	-	11400	-	19700	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-186	MW-188	MW-188
			Sample Date	09/07/2011	06/27/2012	06/28/2012	07/31/2013	08/01/2013	08/12/2014	08/13/2014	12/01/2015	12/02/2015	09/14/2016	06/15/2017	06/16/2017	06/25/2004	07/16/2004
			Field Sample ID	M186B6X	M186B8	M186B8X	M186B9	M186B9X	M186C1	M186C1X	M186C2	M186C2X	M186C3	M186C4	M186C4X	M188A1	M188A2
			SDG	RFT67	RFU94	RFU94	RFB78	RFB78	CS141	CS141	CS322	CS322	CS454	CS574	CS574	RFF15	RFF16
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.53	1.52	2.15	2	2.37	3.14	2.59	-	7.57	-	-	11.14	-	-
DO	mg/L	N	NS	0.07	3.97	2.99	0.31	6.01	1.7	1.32	-	4.96	-	-	0.98	-	-
ORP	millivolts	N	NS	125	69	49	-117	-116	168	-236	-	-129	-	-	52	-	-
pH	pH Units	N	NS	6.96	7.83	6.64	6.93	7.05	6.57	6.67	-	7.4	-	-	8.38	-	-
Alkalinity to pH 4.5	ug/L	N	NS	92600	-	-	-	-	-	-	-	-	-	-	-	-	243000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	700U	-	-	-	-	-	-	-	-	-	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	700U	-	700U	-	700U	-	-	1700U	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	85400	-	90500	-	539000	-	244000	-	-	190000	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	8.9J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	10	9
Iron	ug/L	N	300	-	241	-	82.8J	-	22400	-	5890	-	7170	919	-	-	20600
Iron	ug/L	Y	300	-	33.3U	-	43.0U	-	21700	-	-	-	3140	702	-	-	-
Methane	ug/L	N	NS	170	-	85	-	50	-	17000	-	2100	-	-	240	-	2800
Nitrogen, Nitrate as N	ug/L	N	10000	92J	-	350	-	81J	-	40U	-	40U	-	-	40U	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	6100	-	6600	-	7300	-	10000U	-	104000	-	-	49900	-	15100J
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188
			Sample Date	10/13/2004	10/14/2004	01/10/2005	01/11/2005	05/16/2005	05/17/2005	07/26/2005	07/27/2005	12/19/2005	12/20/2005	02/27/2006	02/28/2006	05/15/2006	05/16/2006
			Field Sample ID	M188A3	M188A3X	M188A4	M188A4X	M188A5	M188A5X	M188A6	M188A6X	M188A7	M188A7X	M188A8	M188A8X	M188A9	M188A9X
			SDG	RFF30	RFF30	RFF35	RFF35	RFF51	RFF52	952987	952987	971917	971917	979761	979761	989833	989833
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	12.38	-	-	-	13.35	-	12.42	-	-	-	-	-	-	-
DO	mg/L	N	NS	0.36	-	-	-	2.84	-	3.9	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-106	-	-	-	-141	-	-133	-	-	-	-	-	-	-
pH	pH Units	N	NS	6.62	-	-	-	6.51	-	6.31	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	277000	-	179000	-	257000	-	272000	-	268000	-	265000	-	269000
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	410U	-	410U	-	410U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	16.1	-	16.0	-	13.0J	-	17.8J	-	9.3U	-	14.6J	-	15.8J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	11	-	7	-	5	-	3J	-	6	-	7	-	7
Iron	ug/L	N	300	22100	-	25300	-	24700	-	23200	-	15100	-	23500	-	26700	-
Iron	ug/L	Y	300	21300	-	20800	-	19300	-	22600	-	25700	-	1700	-	24700	-
Methane	ug/L	N	NS	-	4500	-	3700	-	3000	-	2800	-	4200	-	4700	-	3700
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	16400J	-	7500J	-	15400	-	4300J	-	6000U	-	10300	-	6000U
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188
			Sample Date	08/16/2006	08/17/2006	10/18/2012	10/18/2012	10/18/2012	10/18/2012	12/13/2012	12/13/2012	12/13/2012	02/14/2013	02/14/2013	02/14/2013	04/16/2013	04/22/2013
			Field Sample ID	M188B1	M188B1X	D1018126	M188B2	M188B2X	M188B2X	M188B3	M188B3X	M188B3X	M188B4	M188B4X	M188B4X	M188B5	M188B5X
			SDG	1002095	1002095	RFV81	RFV81	RFV81		RFX16	RFX16		RFX62	RFX62		RFY85	RFY85
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	13.4	13.4	13.4	13.4	12.8	12.8	12.8	11.86	11.86	11.86	11.79	-
DO	mg/L	N	NS	-	-	3.69	3.69	3.69	3.69	-	-	-	0.17	0.17	0.17	0.68	-
ORP	millivolts	N	NS	-	-	-103	-103	-103	-103	-87.8	-87.8	-87.8	-92.8	-92.8	-92.8	-104.1	-
pH	pH Units	N	NS	-	-	6.67	6.67	6.67	6.67	6.68	6.68	6.68	6.64	6.64	6.64	6.58	-
Alkalinity to pH 4.5	ug/L	N	NS	-	246000	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	700U	-	-	700U	-	-	700U	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	230000	-	-	190000	-	-	241000	-	-	228000
Arsenic	ug/L	N	3	22.5J	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	19.0	17.8	-	-	19.1	-	-	14.9	-	-	14.6	-
Benzene	ug/L	N	1	-	5J	4J	-	4J	-	-	3J	-	-	4J	-	-	3J
Iron	ug/L	N	300	25100J	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	24900J	-	23400	23400	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	3700	-	-	-	2500	-	-	1600	-	-	3600	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	40U	-	-	-	-	-	59J	-	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	10000J	-	-	7700J	-	-	10000U	-	-	10000U	-	-	10000U
Sulfide	ug/L	N	NS	-	-	-	-	54U	-	-	54U	-	-	54U	-	-	54U

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188
			Sample Date	04/22/2013	06/12/2013	06/12/2013	06/12/2013	09/20/2013	09/20/2013	09/20/2013	01/10/2014	01/10/2014	01/10/2014	04/10/2014	04/10/2014	04/10/2014	06/19/2014
			Field Sample ID	M188B5X	M188B6	M188B6X	M188B6X	M188B7	M188B7X	M188B7X	M188B8	M188B8X	M188B8X	M188B9	M188B9X	M188B9X	M188C1
			SDG		RFZ94	RFZ94		CP109	CP109		CP256	CP256		CP310	CP310		CP372
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	10.5	10.5	10.5	13.9	13.9	13.9	13.28	13.28	13.28	11.7	11.7	11.7	11.3
DO	mg/L	N	NS	-	11.76	11.76	11.76	10.18	10.18	10.18	19.58	19.58	19.58	0.4	0.4	0.4	4.62
ORP	millivolts	N	NS	-	-71.7	-71.7	-71.7	-10	-10	-10	-87.9	-87.9	-87.9	101.9	101.9	101.9	-85.2
pH	pH Units	N	NS	-	6.6	6.6	6.6	6.71	6.71	6.71	6.45	6.45	6.45	8.71	8.71	8.71	0.52
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	-	700U	-	-	700U	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	28000	-	-	227000	-	-	74300	-	-	188000	-	-
Arsenic	ug/L	N	3	-	-	-	-	17.1	-	-	-	-	-	18.1	-	-	14.2
Arsenic	ug/L	Y	3	-	13.8	-	-	16.6	-	-	16.3	-	-	12.3	-	-	-
Benzene	ug/L	N	1	-	-	0.5U	-	-	3J	-	-	0.5U	-	-	3	-	-
Iron	ug/L	N	300	-	-	-	-	21900	-	-	-	-	-	27100	-	-	-
Iron	ug/L	Y	300	-	-	-	-	21900	-	-	24900	-	-	22900	-	-	-
Methane	ug/L	N	NS	3000	-	-	9.8	-	-	2600	-	-	92	-	-	1800	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	75J	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	2500U	-	-	10000U	-	-	2500U	-	-	12300	-	-
Sulfide	ug/L	N	NS	-	-	54U	-	-	54U	-	-	54U	-	-	600U	-	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188
			Sample Date	06/19/2014	06/19/2014	09/04/2014	09/04/2014	09/04/2014	10/29/2014	10/29/2014	10/29/2014	10/29/2014	09/09/2015	09/09/2015	09/09/2015	10/20/2015	10/20/2015
			Field Sample ID	M188C1X	M188C1X	M188C2	M188C2X	M188C2X	M188C3	M188C3X	M188C3X	M188C3X	M188C5	M188C5X	M188C5X	M188C6	M188C6X
			SDG	CP372		CP491	1503787	CP491	CP571	1525660	CP571		CP837	1592537	CP837	CP894	1606860
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	11.3	11.3	13.6	13.6	13.6	12.51	12.51	12.51	12.51	17.09	17.09	17.09	15.92	15.92
DO	mg/L	N	NS	4.62	4.62	0.56	0.56	0.56	2.93	2.93	2.93	2.93	1.99	1.99	1.99	0	0
ORP	millivolts	N	NS	-85.2	-85.2	-66.7	-66.7	-66.7	-80.6	-80.6	-80.6	-80.6	-40.2	-40.2	-40.2	-90	-90
pH	pH Units	N	NS	0.52	0.52	7.33	7.33	7.33	6.71	6.71	6.71	6.71	6.59	6.59	6.59	6.87	6.87
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	218000	-	-	-	125000	-	-	221000	-	-	-	29300	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	16.6	-	-	18.9	-	-	-	29.7J	-	-	19.1	-
Benzene	ug/L	N	1	2	-	-	-	0.5U	-	-	3	-	-	-	0.6J	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	17000	-
Methane	ug/L	N	NS	-	1800	-	320.00	-	-	1800.00	-	1800	-	1100.00n	-	-	620.00n
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	10400	-	-	-	10900J	-	-	24200	-	-	-	12900	-	-
Sulfide	ug/L	N	NS	1200U	-	-	-	600U	-	-	600U	-	-	-	680U	-	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-188	MW-189	MW-189	MW-189
			Sample Date	10/20/2015	02/11/2016	02/11/2016	05/24/2016	05/24/2016	08/10/2016	08/10/2016	11/09/2016	11/09/2016	05/26/2017	05/26/2017	06/25/2004	07/19/2004	10/13/2004
			Field Sample ID	M188C6X	M188C7	M188C7X	M188C8	M188C8X	M188C9	M188C9X	M188D1	M188D1X	M188D2	M188D2X	M189A1	M189A2	M189A3
			SDG	CP894	CQ012	CQ012	CQ111	CQ111	CQ234	CQ234	CQ431	CQ431	CQ655	CQ655	RFF15	RFF17	RFF30
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	15.92	13.25	13.25	14	14	14.66	14.66	15.75	15.75	-	-	-	-	18.95
DO	mg/L	N	NS	0	8.24	8.24	2.48	2.48	1.14	1.14	3.13	3.13	-	-	-	-	0.48
ORP	millivolts	N	NS	-90	-52.2	-52.2	-80.7	-80.7	64.9	64.9	-81.3	-81.3	-	-	-	-	-56
pH	pH Units	N	NS	6.87	7.09	7.09	6.56	6.56	6.7	6.7	6.75	6.75	-	-	-	-	6.45
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	329000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	30900	-	90400	-	225000	-	170000	-	45100	-	59300	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	4.7U	4.7U
Arsenic	ug/L	Y	3	-	15.1	-	0.54U	-	16.8	-	16.5	-	11.2	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	1	-	0.5U	-	0.5U	-	0.5U	1J	2J	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	4350	6740
Iron	ug/L	Y	300	-	-	-	-	-	-	-	18000	-	-	-	-	-	5620
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	1700	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	5100	-	4900J	-	7200	-	13800	-	9600	-	1500U	-	22400J	-
Sulfide	ug/L	N	NS	680U	-	700U	-	700U	-	700U	-	700U	-	700U	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189
			Sample Date	10/14/2004	01/10/2005	01/11/2005	05/16/2005	05/17/2005	07/26/2005	07/27/2005	12/19/2005	12/20/2005	02/27/2006	02/28/2006	05/15/2006	05/16/2006	08/16/2006
			Field Sample ID	M189A3X	M189A4	M189A4X	M189A5	M189A5X	M189A6	M189A6X	M189A7	M189A7X	M189A8	M189A8X	M189A9	M189A9X	M189B1
			SDG	RFF30	RFF35	RFF35	RFF51	RFF52	952987	952987	971917	971917	979761	979761	989833	989833	1002095
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	18.62	-	19.2	-	-	-	-	-	19.61	-	-
DO	mg/L	N	NS	-	-	-	2.5	-	4.08	-	-	-	-	-	0.5	-	-
ORP	millivolts	N	NS	-	-	-	-57	-	-73	-	-	-	-	-	-63	-	-
pH	pH Units	N	NS	-	-	-	6.35	-	6.08	-	-	-	-	-	6.71	-	-
Alkalinity to pH 4.5	ug/L	N	NS	337000	-	207000	-	343000	-	340000	-	345000	-	354000	-	357000	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	410U	-	410U	-	410U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	4.7U	-	9.3U	-	9.3U	-	10.2J	-	46.5U	-	13.1J	-	10.3J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	2J	-	1J	-	1J	-	1J	-	1J	-	1J	-	1J	-
Iron	ug/L	N	300	-	7570	-	9740	-	9500	-	9270	-	17200	-	16400	-	17800J
Iron	ug/L	Y	300	-	6820	-	3920	-	9470	-	10000	-	9330	-	10900	-	13800J
Methane	ug/L	N	NS	3000	-	3500	-	4200	-	2000	-	1900	-	2900	-	2400	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	10300	-	15900	-	13500	-	13600	-	10900J	-	6800J	-	6000U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189
			Sample Date	08/17/2006	10/17/2012	10/17/2012	10/17/2012	06/12/2013	06/12/2013	06/12/2013	06/19/2014	06/19/2014	06/19/2014	09/04/2014	09/04/2014	09/04/2014	10/29/2014
			Field Sample ID	M189B1X	M189B2	M189B2X	M189B2X	M189B3	M189B3X	M189B3X	M189B4	M189B4X	M189B4X	M189B5	M189B5X	M189B5X	M189B6
			SDG	1002095	RFV76	RFV76		RFZ94	RFZ94		CP372	CP372		CP491	1503787	CP491	CP571
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	19.9	19.9	19.9	17.8	17.8	17.8	17.77	17.77	17.77	19.8	19.8	19.8	18.86
DO	mg/L	N	NS	-	1.63	1.63	1.63	1.25	1.25	1.25	2.58	2.58	2.58	0.41	0.41	0.41	4.15
ORP	millivolts	N	NS	-	-69	-69	-69	-47.2	-47.2	-47.2	-38	-38	-38	-93.1	-93.1	-93.1	-51.4
pH	pH Units	N	NS	-	6.76	6.76	6.76	6.54	6.54	6.54	6.26	6.26	6.26	6.94	6.94	6.94	6.58
Alkalinity to pH 4.5	ug/L	N	NS	326000	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	-	700U	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	312000	-	-	201000	-	-	288000	-	-	-	296000	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	9.2	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	11.0	-	-	9.5	-	-	-	-	-	9.6	-	-	13.3
Benzene	ug/L	N	1	1J	-	0.9J	-	-	0.5U	-	-	0.5J	-	-	-	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	16500	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	1900	-	-	1000	-	-	2400	-	-	720	-	1.10	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	-	40UJ	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	11800	-	25000U	-	-	7000J	-	-	13000	-	-	-	8900J	-
Sulfide	ug/L	N	NS	-	-	54U	-	-	54U	-	-	600U	-	-	-	600U	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189
			Sample Date	10/29/2014	10/29/2014	10/29/2014	09/09/2015	09/09/2015	09/09/2015	09/09/2015	10/20/2015	10/20/2015	10/20/2015	02/11/2016	02/11/2016	05/24/2016	05/24/2016
			Field Sample ID	M189B6X	M189B6X	M189B6X	D0909155	M189B8	M189B8X	M189B8X	M189B9	M189B9X	M189B9X	M189C1	M189C1X	M189C2	M189C2X
			SDG	1525660	CP571		CP837	CP837	1592537	CP837	CP894	1606860	CP894	CQ012	CQ012	CQ111	CQ111
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	18.86	18.86	18.86	21.02	21.02	21.02	21.02	21.42	21.42	21.42	20.84	20.84	20.2	20.2
DO	mg/L	N	NS	4.15	4.15	4.15	2.04	2.04	2.04	2.04	0	0	0	3.14	3.14	3.54	3.54
ORP	millivolts	N	NS	-51.4	-51.4	-51.4	-118	-118	-118	-118	-91	-91	-91	-62.1	-62.1	-78.9	-78.9
pH	pH Units	N	NS	6.58	6.58	6.58	6.5	6.5	6.5	6.5	6.6	6.6	6.6	6.67	6.67	6.75	6.75
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	312000	-	-	-	-	311000	-	-	325000	-	166000	-	314000
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	18.7J	9.5J	-	-	8.3	-	-	9.5	-	9.5U	-
Benzene	ug/L	N	1	-	0.7J	-	0.8J	-	-	0.8J	-	-	0.8J	-	0.5U	-	0.7J
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	11600	-	-	-	-	-	-
Methane	ug/L	N	NS	920.00	-	920	-	-	1600.00n	-	-	1200.00n	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	11200	-	-	-	-	12700	-	-	12300	-	25900	-	14300
Sulfide	ug/L	N	NS	-	600U	-	-	-	-	680U	-	-	680U	-	700U	-	700U

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-189	MW-189	MW-189	MW-189	MW-189	MW-189	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190
			Sample Date	08/10/2016	08/10/2016	11/09/2016	11/09/2016	05/26/2017	05/26/2017	09/16/2004	05/10/2005	09/26/2005	06/29/2006	06/30/2006	11/01/2006	11/02/2006	06/20/2007
			Field Sample ID	M189C3	M189C3X	M189C4	M189C4X	M189C5	M189C5X	M190A1	M190A2	M190A3	M190A4	M190A4X	M190A5	M190A5X	M190A6
			SDG	CQ234	CQ234	CQ431	CQ431	CQ655	CQ655	RFF24	RFF50	960687	995792	995792	1012672	1012672	1043746
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	21.19	21.19	21.42	21.42	-	-	-	-	7.52	-	-	-	-	-
DO	mg/L	N	NS	1.99	1.99	1.07	1.07	-	-	-	-	0.66	-	-	-	-	-
ORP	millivolts	N	NS	-41.8	-41.8	-101.9	-101.9	-	-	-	-	-82	-	-	-	-	-
pH	pH Units	N	NS	6.81	6.81	6.76	6.76	-	-	-	-	6.61	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	191000	-	180000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	284000	-	321000	-	247000	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	10.6	-	8	-	9	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	190J	-	246J	-	506
Iron	ug/L	Y	300	-	-	11000	-	-	-	-	-	-	52.2U	-	267J	-	52.2U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	40U	40U	40U	-	40U	-	210	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	14400	-	15500	-	14600	-	-	-	-	110000	-	140000	-
Sulfide	ug/L	N	NS	-	700U	-	700U	-	700U	-	-	-	-	530U	-	530U	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190
			Sample Date	06/21/2007	09/26/2007	09/27/2007	05/19/2008	05/20/2008	10/09/2008	10/10/2008	09/16/2009	09/17/2009	11/04/2009	11/05/2009	08/10/2010	08/10/2010	08/17/2011
			Field Sample ID	M190A6X	M190A7	M190A7X	M190A8	M190A8X	M190A9	M190A9X	M190B1	M190B1X	M190B2	M190B2X	M190B3	M190B3X	M190B4
			SDG	1043746	1058407	1058407	1092258	1092258	1114607	1114607	1162355	1162355	1169793	1169793	RFS63	RFS63	RFT60
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	8.71	-	9.5	-	9.36	-	9.36	-	-	-	8.91
DO	mg/L	N	NS	-	-	-	0.71	-	0.72	-	6.37	-	1.19	-	-	-	4.99
ORP	millivolts	N	NS	-	-	-	161	-	94	-	84	-	179	-	-	-	126
pH	pH Units	N	NS	-	-	-	5.25	-	5.63	-	5.26	-	6.14	-	-	-	6.40
Alkalinity to pH 4.5	ug/L	N	NS	192000	-	157000	-	187000	-	176000	-	179000	-	176000	-	191000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	10.2U	-	10.2U	-	7.2U	-	7.2U	-	9.8U	-	5.1U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	362	-	161J	-	52.2U	-	131J	-	2440	-	715	-	54.6J
Iron	ug/L	Y	300	-	197J	-	52.2U	-	52.2U	-	54.6J	-	52.2U	-	52.2U	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	150	-	40U	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	174000	-	183000	-	152000	-	179000	-	171000	-	154000	-	152000	-
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-190	MW-191	MW-191	MW-191	MW-191
			Sample Date	08/18/2011	06/19/2012	06/20/2012	08/27/2013	08/28/2013	08/19/2014	08/20/2014	11/13/2017	02/27/2018	02/28/2018	06/25/2004	07/19/2004	10/13/2004	10/14/2004
			Field Sample ID	M190B4X	M190B5	M190B5X	M190B6	M190B6X	M190B7	M190B7X	M190C4X	M190C5	M190C5X	M191A1	M191A2	M191A3	M191A3X
			SDG	RFT60	RFU86	RFU86	CS001	CS001	CS143	CS143	CQ880	CS654	CS654	RFF15	RFF17	RFF30	RFF30
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.85	8.91	8.93	9.19	-	-	9.7	6.16	-	-	-	-	26.48	-
DO	mg/L	N	NS	8.55	6.21	3.61	0.54	-	0.97	-	8.47	-	-	-	-	0.78	-
ORP	millivolts	N	NS	133	159	154	-377	-	209	-	-157.1	-	-	-	-	-135	-
pH	pH Units	N	NS	6.47	6.81	9.79	6.29	-	6.62	-	7.00	-	-	-	-	7.14	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	489000	-	274000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	410U	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	200000	-	180000	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	700U	-	700U	-	-	1700U	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	200000	-	180000	-	-	192000	-	-	-	-
Arsenic	ug/L	N	3	-	5.1U	-	0.42U	-	0.82U	-	-	0.72U	-	-	5.8J	8.1J	-
Arsenic	ug/L	Y	3	-	-	-	0.42U	-	0.82U	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	-	0.5U
Iron	ug/L	N	300	-	33.3U	-	74.5J	-	33.4U	-	-	80.5U	-	-	7520	7610	-
Iron	ug/L	Y	300	-	-	-	43.0U	-	33.4U	-	-	80.5U	-	-	-	1480	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	10000	-	10000
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	40U	-	40U	-	-	40U	-	40U	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	117000	-	134000	-	-	94100	-	787000J	-	30000U
Sulfide	ug/L	N	NS	-	-	-	-	600U	-	600U	-	-	700U	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191
			Sample Date	01/10/2005	01/11/2005	05/16/2005	05/17/2005	07/26/2005	07/27/2005	12/19/2005	12/20/2005	02/27/2006	02/28/2006	05/15/2006	05/16/2006	08/16/2006	08/17/2006
			Field Sample ID	M191A4	M191A4X	M191A5	M191A5X	M191A6	M191A6X	M191A7	M191A7X	M191A8	M191A8X	M191A9	M191A9X	M191B1	M191B1X
			SDG	RFF35	RFF35	RFF51	RFF52	952987	952987	971917	971917	979761	979761	989833	989833	1002095	1002095
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	27.5	-	-	27.5	-	-	-	-	27.62	-	-	-
DO	mg/L	N	NS	-	-	2.3	-	-	3.7	-	-	-	-	0.5	-	-	-
ORP	millivolts	N	NS	-	-	-124	-	-	-110	-	-	-	-	-61	-	-	-
pH	pH Units	N	NS	-	-	6.62	-	-	6.3	-	-	-	-	6.4	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	346000	-	216000	-	221000	-	239000	-	-	-	281000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	410U	-	410U	-	460U	-	-	-	460U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	58.3	-	9.3U	-	9.3U	-	9.3U	-	9.3U	-	9.3U	-	10U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	257000	-	6440	-	3330	-	6280	-	6570	-	11900	-	11300J	-
Iron	ug/L	Y	300	7500	-	42.4J	-	1180	-	2410	-	4790	-	8190	-	11400J	-
Methane	ug/L	N	NS	-	6200	-	10000	-	7000	-	6200	-	6700	-	19000	-	12000
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	37500	-	75000U	-	79400J	-	15000U	-	-	-	30000U	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191
			Sample Date	10/17/2012	10/17/2012	10/17/2012	06/11/2013	06/11/2013	06/11/2013	09/09/2015	09/09/2015	09/09/2015	10/20/2015	10/20/2015	10/20/2015	02/11/2016	02/11/2016
			Field Sample ID	M191B2	M191B2X	M191B2X	M191B3	M191B3X	M191B3X	M191B4	M191B4X	M191B4X	M191B5	M191B5X	M191B5X	M191B6	M191B6X
			SDG	RFV76	RFV76		RFZ93	RFZ93		CP837	1592537	CP837	CP894	1606860	CP894	CQ012	CQ012
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	28.4	28.4	28.4	27.29	27.29	27.29	29.42	29.42	29.42	28.75	28.75	28.75	28.47	28.47
DO	mg/L	N	NS	1.81	1.81	1.81	8.95	8.95	8.95	2.69	2.69	2.69	6.32	6.32	6.32	2.74	2.74
ORP	millivolts	N	NS	-112	-112	-112	-102.7	-102.7	-102.7	-42.3	-42.3	-42.3	-152	-152	-152	-122.7	-122.7
pH	pH Units	N	NS	7.07	7.07	7.07	7	7	7	6.94	6.94	6.94	6.97	6.97	6.97	7.02	7.02
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	700U	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	433000	-	-	-	467000	-	-	475000	-	476000
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	7.1	-	-	8.6	-	-	6.1	-	-	20.4	-	-	4.6	-
Benzene	ug/L	N	1	-	0.5U	-	-	0.5U	-	-	-	0.5U	-	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	15700	-	-	-	-	-	-	-	-	23500	-	-	-	-
Methane	ug/L	N	NS	-	-	12000	-	-	11000	-	12000.00n	-	-	7800.00n	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	40U	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	10000U	-	-	25000U	-	-	-	2300J	-	-	19700	-	10800
Sulfide	ug/L	N	NS	-	320	-	-	230	-	-	-	680U	-	-	680U	-	700U

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-191	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216
			Sample Date	05/24/2016	05/24/2016	08/10/2016	08/10/2016	11/09/2016	11/09/2016	05/26/2017	05/26/2017	03/02/2005	03/16/2005	03/17/2005	05/05/2005	05/05/2005	07/20/2005
			Field Sample ID	M191B7	M191B7X	M191B8	M191B8X	M191B9	M191B9X	M191C1	M191C1X	M216A1	M216A2	M216A2X	M216A3	M216A3X	M216A4
			SDG	CQ111	CQ111	CQ234	CQ234	CQ431	CQ431	CQ655	CQ655	RFF40	RFF45	RFF45	RFF49	RFF49	952296
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	28.8	28.8	29.25	29.25	29.9	29.9	-	-	-	-	-	8.33	8.33	7.98
DO	mg/L	N	NS	3.76	3.76	3.3	3.3	0.87	0.87	-	-	-	-	-	3.7	3.7	3.64
ORP	millivolts	N	NS	-107.3	-107.3	-100.5	-100.5	-131.3	-131.3	-	-	-	-	-	174	174	151
pH	pH Units	N	NS	6.7	6.7	6.9	6.9	6.79	6.79	-	-	-	-	-	4.84	4.84	4.13
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	4000	-	6600	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410U	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	466000	-	486000	-	508000	-	491000	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	4.7U	-	9.3U	-	9.3U
Arsenic	ug/L	Y	3	2.7U	-	3.6	-	3.1	-	3.4	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	93	-	99	-	82	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	8820	-	8280	-	7470
Iron	ug/L	Y	300	-	-	-	-	18900	-	-	-	-	7560	-	7580	-	6590
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	6600	-	4200	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	40U	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	15000	-	10400	-	6300	-	1500U	-	-	128000	-	133000	-
Sulfide	ug/L	N	NS	-	700U	-	700U	-	700U	-	700U	-	-	-	-	-	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216
			Sample Date	07/21/2005	11/29/2005	12/01/2005	02/15/2006	02/16/2006	04/27/2006	04/28/2006	07/10/2006	07/11/2006	10/01/2007	10/02/2007	06/02/2008	06/03/2008	07/27/2009
			Field Sample ID	M216A4X	M216A5	M216A5X	M216A6	M216A6X	M216A7	M216A7X	M216A8	M216A8X	M216A9	M216A9X	M216B1	M216B1X	M216B2
			SDG	952296	969425	969425	978446	978446	987510	987510	996873	996873	1059087	1059087	1094218	1094218	1155322
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	8	-	8.04
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	0.35	-	2.26
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	233	-	236
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	4.60	-	4.04
Alkalinity to pH 4.5	ug/L	N	NS	24200	-	32400	-	6500	-	9900	-	2800	-	460U	-	460U	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.3U	-	9.3U	-	9.3U	-	10U	-	10.0U	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	54	-	41	-	72	-	83	-	61	-	46	-	77	-
Iron	ug/L	N	300	-	5930	-	8160	-	7140	-	6040J	-	4800	-	5230	-	3990
Iron	ug/L	Y	300	-	5720	-	7490	-	7250	-	6560J	-	5390	-	4420	-	3140
Methane	ug/L	N	NS	3200	-	4200	-	4600	-	4000	-	3900	-	3000	-	4100	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	110000	-	105000	-	120000	-	111000	-	108000	-	70200	-	98600	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216
			Sample Date	07/28/2009	08/02/2010	08/03/2010	08/24/2011	08/25/2011	04/04/2012	04/04/2012	04/04/2012	06/14/2012	06/15/2012	10/19/2012	12/13/2012	12/13/2012	12/13/2012
			Field Sample ID	M216B2X	M216B3	M216B3X	M216B4	M216B4X	M216B5	M216B5X	M216B5X	M216B6	M216B6X	M216B7	D1213128	M216B8	M216B8X
			SDG	1155322	RFS62	RFS62	RFT63	RFT63	RFU38	4825	RFU38	RFU84	RFU84	RFV86	RFX16	RFX16	RFX16
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	8.68	9.82	7.11	8.12	8.85	8.85	8.85	8.16	7.98	-	8.64	8.64	8.64
DO	mg/L	N	NS	-	1.11	0.24	28.82	3.22	-	-	-	0.92	1.03	-	0	0	0
ORP	millivolts	N	NS	-	165	157	141	211	-	-	-	184	269	-	216.6	216.6	216.6
pH	pH Units	N	NS	-	6.05	5.07	4.79	4.82	-	-	-	4.27	4.91	-	4.82	4.82	4.82
Alkalinity to pH 4.5	ug/L	N	NS	460U	-	460U	-	460U	-	-	2700	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	-	460U	-	700U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	3300	-	-	-	5300
Arsenic	ug/L	N	3	-	-	-	-	-	5.1U	-	-	-	-	0.40U	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	5.1U	-	-	-	-	-	0.40U	0.40U	-
Benzene	ug/L	N	1	88	-	150	-	140	-	-	120	-	110	-	84	-	84
Iron	ug/L	N	300	-	3120	-	2720	-	3590	-	-	3880	-	3550	-	-	-
Iron	ug/L	Y	300	-	3260	-	2850	-	3340	-	-	3540	-	-	-	-	-
Methane	ug/L	N	NS	3400	-	3500	-	4800	-	3700	-	-	4500	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	-	40U	-	40U	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	83900	-	82900	-	92200	-	-	93600	-	84900	-	-	-	92500
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	54U	-	-	-	-	-	54U

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216
			Sample Date	12/13/2012	02/13/2013	02/13/2013	02/13/2013	04/15/2013	04/15/2013	04/15/2013	06/04/2013	06/04/2013	07/29/2013	07/30/2013	09/18/2013	09/19/2013	09/19/2013
			Field Sample ID	M216B8X	M216B9	M216B9X	M216B9X	M216C1	M216C1X	M216C1X	M216C2	M216C2X	M216C3	M216C3X	M216C4X	M216C4	M216C4
			SDG		RFX57	RFX57		RFY79	RFY79		RFZ78	RFZ78	RFB75	RFB75	CP106	CP107	CP115
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.64	8.62	8.62	8.62	8.41	8.41	8.41	8.02	8.02	7.96	8.11	9.25	7.89	7.89
DO	mg/L	N	NS	0	0.83	0.83	0.83	0.19	0.19	0.19	8.19	8.19	1.72	0.4	6.53	16.43	16.43
ORP	millivolts	N	NS	216.6	249.5	249.5	249.5	183	183	183	230.5	230.5	-5	-157	79	93.2	93.2
pH	pH Units	N	NS	4.82	4.68	4.68	4.68	4.39	4.39	4.39	4.59	4.59	4.88	5.00	4.65	4.97	4.97
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	-	700U	-	-	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	7700	-	-	6000	-	-	7200	-	5200	-	6800	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	2.1U	-	-
Arsenic	ug/L	Y	3	-	0.59J	-	-	0.40J	-	-	0.44J	-	-	-	0.42U	-	-
Benzene	ug/L	N	1	-	-	81	-	-	96	-	-	83	-	64	-	80	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	2650	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	2240	-	2650	-	-
Methane	ug/L	N	NS	4900	-	-	3600	-	-	4500	-	-	-	5300	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	42J	-	-	43J	-	-	-	-	40U	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	40U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	89800	-	-	93700	-	-	92500	-	89900	-	86600	-
Sulfide	ug/L	N	NS	-	-	54U	-	-	54U	-	-	54U	-	-	-	-	54U

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216
			Sample Date	09/19/2013	12/18/2013	12/18/2013	12/18/2013	03/12/2014	03/12/2014	03/12/2014	03/12/2014	03/12/2014	03/12/2014	06/24/2014	06/24/2014	06/24/2014	08/11/2014
			Field Sample ID	M216C4	M216C5	M216C5X	M216C5X	D0312145	D0312145	M216C6	M216C6	M216C6X	M216C6X	M216C7	M216C7X	M216C7X	M216C8
			SDG		CP245	CP245		CP273	CP274	CP273	CP274	CP273		CP383	CP383		CS140
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.89	10.52	10.52	10.52	11.3	11.3	11.3	11.3	11.3	11.3	11.5	11.5	11.5	8.91
DO	mg/L	N	NS	16.43	4.21	4.21	4.21	0.33	0.33	0.33	0.33	0.33	0.33	4.72	4.72	4.72	0.9
ORP	millivolts	N	NS	93.2	-46.2	-46.2	-46.2	-102.4	-102.4	-102.4	-102.4	-102.4	-102.4	-84.8	-84.8	-84.8	103
pH	pH Units	N	NS	4.97	6.51	6.51	6.51	6.52	6.52	6.52	6.52	6.52	6.52	6.19	6.19	6.19	6.21
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	-	-	-	-	700U	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	826000	-	-	-	-	-	671000	-	-	626000	-	-
Arsenic	ug/L	N	3	-	5.2	-	-	8.0	-	8.7	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	7.4	-	8.1	-	-	11.1	-	-	-
Benzene	ug/L	N	1	-	-	35	-	40	-	-	-	38	-	-	44	-	-
Iron	ug/L	N	300	-	17200	-	-	146000	-	143000	-	-	-	-	-	-	100000
Iron	ug/L	Y	300	-	-	-	-	-	143000	-	138000	-	-	-	-	-	91900
Methane	ug/L	N	NS	4200	-	-	2100	-	-	-	-	-	4300	-	-	9900	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	143000	-	-	-	-	-	25000U	-	-	1500U	-	-
Sulfide	ug/L	N	NS	-	-	280	-	-	-	-	-	150J	-	-	1800J	-	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216
			Sample Date	08/12/2014	08/28/2014	08/28/2014	08/28/2014	08/28/2014	10/31/2014	10/31/2014	10/31/2014	10/31/2014	01/19/2015	01/19/2015	01/19/2015	01/19/2015	04/23/2015
			Field Sample ID	M216C8X	D0828145	M216C9	M216C9X	M216C9X	M216D1	M216D1X	M216D1X	M216D1X	M216D3	M216D3X	M216D3X	M216D3X	M216D4
			SDG	CS140	CP488	CP488	1501647	CP488	CP577	1518416	CP577		CP646	1535463	CP646		CP692
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.99	9.68	9.68	9.68	9.68	8.73	8.73	8.73	8.73	11.35	11.35	11.35	11.35	10.35
DO	mg/L	N	NS	-	1.24	1.24	1.24	1.24	6.64	6.64	6.64	6.64	0.82	0.82	0.82	0.82	5.6
ORP	millivolts	N	NS	-	-130.1	-130.1	-130.1	-130.1	-92.4	-92.4	-92.4	-92.4	-80.4	-80.4	-80.4	-80.4	84
pH	pH Units	N	NS	-	6.64	6.64	6.64	6.64	6.27	6.27	6.27	6.27	6.52	6.52	6.52	6.52	7.49
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	494000	-	-	-	214000	-	-	490000	-	-	-	368000	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	3.1	3.2	-	-	38.5	-	-	-	7.4	-	-	-	6.8
Benzene	ug/L	N	1	20	3J	-	-	3J	-	-	12	-	-	-	16	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	18000	-	-	9000.00	-	-	12000.00	-	12000	-	16000.00	-	16000	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	25000U	-	-	-	95100	-	-	3800J	-	-	-	44000	-	-
Sulfide	ug/L	N	NS	-	-	-	-	900J	-	-	600U	-	-	-	600U	-	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-216	MW-217
			Sample Date	04/23/2015	04/23/2015	04/23/2015	07/09/2015	07/09/2015	07/09/2015	10/12/2015	10/12/2015	10/12/2015	11/06/2017	11/07/2017	02/22/2018	02/22/2018	02/16/2005
			Field Sample ID	M216D4X	M216D4X	M216D4X	M216D5	M216D5X	M216D5X	M216D6	M216D6X	M216D6X	M216E4	M216E4X	M216E5	M216E5X	M217A4X
			SDG	1559415	CP692		CP775	1579561	CP775	CP875	1600816	CP875	CQ868	CQ870	CQ991	CQ991	978446
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	10.35	10.35	10.35	13.05	13.05	13.05	10.43	10.43	10.43	-	16.44	-	-	-
DO	mg/L	N	NS	5.6	5.6	5.6	4.2	4.2	4.2	5.45	5.45	5.45	-	1.09	-	-	-
ORP	millivolts	N	NS	84	84	84	-66.9	-66.9	-66.9	-48.3	-48.3	-48.3	-	-85.5	-	-	-
pH	pH Units	N	NS	7.49	7.49	7.49	6.73	6.73	6.73	5.42	5.42	5.42	-	6.19	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	358000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	439000	-	-	-	386000	-	-	233000	-	225000	-	147000	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	9.1	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	7.6	-	-	7.3	-	-	6.2	-	4.8	-	-
Benzene	ug/L	N	1	-	23	-	-	-	29	-	-	12	-	43	-	34	130
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	46900	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	40800	-	-	44200	-	-	-	-
Methane	ug/L	N	NS	18000.00n	-	18000	-	18000.00n	-	-	18000.00n	-	-	-	-	-	6800
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	40U	-	44J	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	43700	-	-	-	30700	-	-	131000	-	68600J-	-	56400	185000
Sulfide	ug/L	N	NS	-	1500J	-	-	-	2200	-	-	680U	-	700U	-	700U	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217
			Sample Date	05/05/2005	05/05/2005	07/20/2005	07/21/2005	11/30/2005	12/01/2005	02/15/2006	04/27/2006	04/28/2006	07/12/2006	07/13/2006	10/03/2007	10/04/2007	06/02/2008
			Field Sample ID	M217A1	M217A1X	M217A2	M217A2X	M217A3	M217A3X	M217A4	M217A5	M217A5X	M217A6	M217A6X	M217A7	M217A7X	M217A8
			SDG	RFF49	RFF49	952296	952296	969425	969425	978446	987510	987510	997281	997281	1059557	1059557	1094218
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	10.05	10.05	9.46	-	-	-	-	-	-	-	-	-	-	9.43
DO	mg/L	N	NS	2.57	2.57	1.56	-	-	-	-	-	-	-	-	-	-	0.57
ORP	millivolts	N	NS	-70	-70	-62	-	-	-	-	-	-	-	-	-	-	-24
pH	pH Units	N	NS	6.37	6.37	5.98	-	-	-	-	-	-	-	-	-	-	6.42
Alkalinity to pH 4.5	ug/L	N	NS	-	347000	-	355000	-	365000	-	-	358000	-	354000	-	334000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	410U	-	460U	-	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	9.3U	-	9.3U	-	9.3U	-	9.3U	9.3U	-	10U	-	16.7J	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	120	-	110	-	130	-	-	130	-	130	-	68	-
Iron	ug/L	N	300	23000	-	14200	-	24700	-	15600	18500	-	23200J	-	20800	-	17400
Iron	ug/L	Y	300	14500	-	13700	-	16600	-	13000	14500	-	16300J	-	17200	-	14900
Methane	ug/L	N	NS	-	5700	-	6000	-	7200	-	-	6300	-	9300	-	7700	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	-	40U	-	40U	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	167000	-	121000	-	170000	-	-	157000	-	142000	-	170000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217
			Sample Date	06/03/2008	07/27/2009	07/28/2009	08/02/2010	08/03/2010	08/24/2011	08/25/2011	04/04/2012	04/04/2012	04/04/2012	06/14/2012	06/15/2012	10/19/2012	12/14/2012
			Field Sample ID	M217A8X	M217A9	M217A9X	M217B1	M217B1X	M217B2	M217B2X	M217B3	M217B3X	M217B3X	M217B4	M217B4X	M217B5	M217B6
			SDG	1094218	1155322	1155322	RFS62	RFS62	RFT63	RFT63	RFU38	4825	RFU38	RFU84	RFU84	RFV86	RFX19
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	10.21	12.82	8.08	9.78	9.6	9.6	9.6	10.03	11.33	10.9	11.9
DO	mg/L	N	NS	-	-	-	0.4	0	0.44	2.17	0.7	0.7	0.7	20	-0.12	0.52	0
ORP	millivolts	N	NS	-	-	-	-70	-50	-35	-33	-25.5	-25.5	-25.5	-82	-31	-40	-114.5
pH	pH Units	N	NS	-	-	-	8.52	5.75	6.33	6.43	6.24	6.24	6.24	6.98	6.84	6.37	6.61
Alkalinity to pH 4.5	ug/L	N	NS	362000	-	359000	-	360000	-	314000	-	-	333000	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	-	460U	-	700U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	331000	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	6.2J	-	-	-	-	6.7	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	5.1U	-	-	-	-	-	22.1
Benzene	ug/L	N	1	94	-	68	-	68	-	34	-	-	45	-	44	-	-
Iron	ug/L	N	300	-	17800	-	26200	-	16900	-	15300	-	-	13200	-	14500	-
Iron	ug/L	Y	300	-	15500	-	20100	-	17800	-	11500	-	-	13500	-	-	-
Methane	ug/L	N	NS	9500	-	8200	-	5700	-	5700	-	5400	-	-	5700	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	-	40U	-	40U	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	164000	-	151000	-	151000	-	141000	-	-	118000	-	122000	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	54U	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217
			Sample Date	12/14/2012	12/14/2012	02/14/2013	02/14/2013	02/14/2013	02/14/2013	04/16/2013	04/16/2013	04/16/2013	04/16/2013	07/29/2013	07/30/2013	09/19/2013	09/19/2013
			Field Sample ID	M217B6X	M217B6X	D0214135	M217B7	M217B7X	M217B7X	D0416135	M217B8	M217B8X	M217B8X	M217B9	M217B9X	M217C1	M217C1
			SDG	RFX19		RFX62	RFX62	RFX62		RFY85	RFY85	RFY85		RFB75	RFB75	CP107	
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	11.9	11.9	9.96	9.96	9.96	9.96	9.5	9.5	9.5	9.5	10.3	9.82	10.45	10.45
DO	mg/L	N	NS	0	0	0.32	0.32	0.32	0.32	0.06	0.06	0.06	0.06	2.09	0.2	2.03	2.03
ORP	millivolts	N	NS	-114.5	-114.5	-127.9	-127.9	-127.9	-127.9	-132.4	-132.4	-132.4	-132.4	-172	-169	-103.7	-103.7
pH	pH Units	N	NS	6.61	6.61	6.72	6.72	6.72	6.72	6.57	6.57	6.57	6.57	6.26	6.70	6.78	6.78
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	-	-	700U	-	-	-	700U	-	-	700U	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	689000	-	-	-	781000	-	-	-	944000	-	-	850000	998000	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	22.5	23.1	-	-	24.4	23.7	-	-	-	-	-	-
Benzene	ug/L	N	1	79	-	62	-	67	-	68	-	61	-	-	46	56	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	26400	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	24100	-	-	-
Methane	ug/L	N	NS	-	4200	-	-	-	5300	-	-	-	16000	-	25000	-	16000
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	40U	-	-	-	50J	-	-	40U	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	10000U	-	-	-	73900	-	-	-	25000U	-	-	9100J	10000U	-
Sulfide	ug/L	N	NS	3100	-	-	-	1200	-	-	-	460	-	-	-	5000	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217
			Sample Date	09/19/2013	12/17/2013	12/17/2013	12/17/2013	12/17/2013	03/13/2014	03/13/2014	03/13/2014	06/20/2014	06/20/2014	06/20/2014	06/20/2014	08/12/2014	08/13/2014
			Field Sample ID	M217C1X	D1217135	M217C2	M217C2X	M217C2X	M217C3	M217C3X	M217C3X	D0620145	M217C4	M217C4X	M217C4X	M217C5	M217C5X
			SDG	CP107	CP242	CP242	CP242		CP276	CP276		CP374	CP374	CP374		CS141	CS141
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	10.45	12.05	12.05	12.05	12.05	11.91	11.91	11.91	11.2	11.2	11.2	11.2	10.18	10.35
DO	mg/L	N	NS	2.03	3.05	3.05	3.05	3.05	4.66	4.66	4.66	6.57	6.57	6.57	6.57	1.43	-
ORP	millivolts	N	NS	-103.7	-108.8	-108.8	-108.8	-108.8	-117.5	-117.5	-117.5	-102.6	-102.6	-102.6	-102.6	156	-
pH	pH Units	N	NS	6.78	6.64	6.64	6.64	6.64	6.91	6.91	6.91	6.33	6.33	6.33	6.33	6.55	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	700U	-	-	700U	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	833000	-	-	734000	-	-	-	741000	-	-	725000
Arsenic	ug/L	N	3	15.7	-	-	-	-	16.2	-	-	19.8	25.3J	-	-	-	-
Arsenic	ug/L	Y	3	16.3	22.6	20.7	-	-	16.9	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	51	-	46	-	-	32	-	39	-	43	-	-	43
Iron	ug/L	N	300	35500	-	-	-	-	48000	-	-	-	-	-	-	45300	-
Iron	ug/L	Y	300	36700	57800	58200	-	-	43500	-	-	-	-	-	-	44000	-
Methane	ug/L	N	NS	-	-	-	-	17000	-	-	14000	-	-	-	12000	-	24000
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	26700	-	-	38100	-	-	-	10700	-	-	10000U
Sulfide	ug/L	N	NS	-	-	-	2000	-	-	1300	-	-	-	2700	-	-	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217	MW-217
			Sample Date	01/15/2015	01/15/2015	01/15/2015	04/21/2015	04/21/2015	04/21/2015	04/21/2015	07/06/2015	07/06/2015	07/06/2015	10/09/2015	10/09/2015	10/09/2015	11/06/2017
			Field Sample ID	M217C6	M217C6X	M217C6X	M217C7	M217C7X	M217C7X	M217C7X	M217C8	M217C8X	M217C8X	M217C9	M217C9X	M217C9X	M217D7
			SDG	CP642	CP642		CP688	1559414	CP688		CP769	1579558	CP769	CP871	1600812	CP871	CQ868
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	10.04	10.04	10.04	11.71	11.71	11.71	11.71	15.51	15.51	15.51	15.92	15.92	15.92	-
DO	mg/L	N	NS	10.76	10.76	10.76	2.89	2.89	2.89	2.89	0.93	0.93	0.93	3.86	3.86	3.86	-
ORP	millivolts	N	NS	-107.6	-107.6	-107.6	-79	-79	-79	-79	-79.1	-79.1	-79.1	-77.2	-77.2	-77.2	-
pH	pH Units	N	NS	6.68	6.68	6.68	6.65	6.65	6.65	6.65	6.65	6.65	6.65	6.67	6.67	6.67	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	538000	-	-	-	582000	-	-	-	541000	-	-	456000	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	16.9	-	-	13.5	-	-	-	20.9	-	-	0.54U	-	-	8.6
Benzene	ug/L	N	1	-	33	-	-	-	29	-	-	-	33	-	-	46	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	27100
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	26200
Methane	ug/L	N	NS	-	-	15000	-	14000.00n	-	14000	-	13000.00n	-	-	16000.00n	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	92000	-	-	-	99800	-	-	-	37600	-	-	61500	-
Sulfide	ug/L	N	NS	-	720J	-	-	-	680U	-	-	-	680U	-	-	1400J	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-217	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219
			Sample Date	11/07/2017	11/23/2005	12/15/2005	12/16/2005	02/21/2006	02/22/2006	05/08/2006	05/09/2006	07/10/2006	07/11/2006	09/24/2007	09/25/2007	06/04/2008	06/05/2008
			Field Sample ID	M217D7X	M219A1	M219A2	M219A2X	M219A3	M219A3X	M219A4	M219A4X	M219A5	M219A5X	M219A6	M219A6X	M219A7	M219A7X
			SDG	CQ870	968826	971536	971536	979093	979093	988894	988894	996873	996873	1057932	1057932	1094772	1094772
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	16.65	-	-	-	-	-	-	-	-	-	6.65	-	-	-
DO	mg/L	N	NS	1.37	-	-	-	-	-	-	-	-	-	1.18	-	-	-
ORP	millivolts	N	NS	-93.8	-	-	-	-	-	-	-	-	-	-80	-	-	-
pH	pH Units	N	NS	6.56	-	-	-	-	-	-	-	-	-	6.38	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	111000	-	87400	-	84000	-	117000	-	125000	-	108000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	362000	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	9.3U	-	9.3U	-	9.3U	-	10U	-	10.0U	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	29	2J	-	2J	-	2J	-	1J	-	0.9J	-	0.5J	-	0.6J
Iron	ug/L	N	300	-	-	458	-	1690	-	2590	-	555J	-	4550	-	6740	-
Iron	ug/L	Y	300	-	-	212	-	225	-	1080	-	407J	-	2980	-	3600	-
Methane	ug/L	N	NS	-	-	-	140	-	420	-	750	-	470	-	420	-	220
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	62700J-	-	-	58500	-	59000	-	65700	-	50700	-	37600	-	45500
Sulfide	ug/L	N	NS	700U	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219
			Sample Date	07/27/2009	07/28/2009	07/28/2010	07/29/2010	08/22/2011	08/23/2011	04/03/2012	04/03/2012	04/03/2012	06/12/2012	06/13/2012	10/19/2012	12/12/2012	12/12/2012
			Field Sample ID	M219A8	M219A8X	M219A9	M219A9X	M219B1	M219B1X	M219B2	M219B2X	M219B2X	M219B3	M219B3X	M219B4	M219B5	M219B5X
			SDG	1155322	1155322	RFS60	RFS60	RFT62	RFT62	RFU38	4825	RFU38	RFU82	RFU82	RFV86	RFX17	RFX17
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.79	-	-	6.32	3.34	4.81	6	6	6	5.71	7.04	6.6	6.56	6.56
DO	mg/L	N	NS	2.26	-	-	1.02	14.26	3.77	0.47	0.47	0.47	4.52	5.26	0.58	0	0
ORP	millivolts	N	NS	-43	-	-	-66	40	59	-4.2	-4.2	-4.2	11	65	-37	27.5	27.5
pH	pH Units	N	NS	5.92	-	-	6.46	6.89	6.50	6.53	6.53	6.53	7.07	6.76	6.53	6.50	6.50
Alkalinity to pH 4.5	ug/L	N	NS	-	131000	-	126000	-	121000	-	-	137000	-	6400	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	-	460U	-	700U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	111000
Arsenic	ug/L	N	3	-	-	-	-	-	-	5.1U	-	-	-	-	2.1	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	5.1U	-	-	-	-	-	1.5J	-
Benzene	ug/L	N	1	-	1J	-	0.5U	-	0.5U	-	-	0.5U	-	0.5U	-	-	0.5U
Iron	ug/L	N	300	7060	-	54200	-	9050	-	3230	-	-	7140	-	4150	-	-
Iron	ug/L	Y	300	4040	-	12400	-	4540	-	1920	-	-	4220	-	-	-	-
Methane	ug/L	N	NS	-	92	-	180	-	28	-	750	-	-	6.4J	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	-	40U	-	800	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	51400	-	52200	-	42200	-	-	37200	-	2500U	-	-	17600
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	54U	-	-	-	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219
			Sample Date	12/12/2012	02/13/2013	02/13/2013	02/13/2013	04/15/2013	04/15/2013	04/15/2013	06/03/2013	06/03/2013	08/05/2013	08/06/2013	09/17/2013	09/17/2013	09/18/2013
			Field Sample ID	M219B5X	M219B6	M219B6X	M219B6X	M219B7	M219B7X	M219B7X	M219B8	M219B8X	M219B9	M219B9X	D0917135	M219C1X	D0918135
			SDG		RFX57	RFX57		RFY79	RFY79		RFZ74	RFZ74	RFB82	RFB82	CP106	CP106	CP106
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.56	8.72	8.72	8.72	5.5	5.5	5.5	5.34	5.34	-	-	4.65	4.65	6.15
DO	mg/L	N	NS	0	0.44	0.44	0.44	11.02	11.02	11.02	3.87	3.87	-	-	3.64	3.64	7.34
ORP	millivolts	N	NS	27.5	28.6	28.6	28.6	3.9	3.9	3.9	1.8	1.8	-	-	9.4	9.4	-10.8
pH	pH Units	N	NS	6.50	6.54	6.54	6.54	6.43	6.43	6.43	6.60	6.60	-	-	6.35	6.35	6.19
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	-	700U	-	-	700U	-	700U	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	136000	-	-	128000	-	-	127000	-	155000	-	-	155000
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	1.9J	1.8UJ	-
Arsenic	ug/L	Y	3	-	0.95J	-	-	0.93J	-	-	0.42U	-	-	-	1.8J	1.9J	-
Benzene	ug/L	N	1	-	-	0.5U	-	-	0.5U	-	-	0.5U	-	0.5U	-	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	4220	-	3060	3270	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	4570	-	3080	3130J	-
Methane	ug/L	N	NS	680	-	-	240	-	-	250	-	-	-	270	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	-	40U	-	-	40U	-	40U	-	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	23200	-	-	29100	-	-	28800	-	27300	-	-	35100
Sulfide	ug/L	N	NS	-	-	54U	-	-	54U	-	-	54U	-	-	-	-	54U

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R
			Sample Date	09/18/2013	09/18/2013	09/18/2013	04/20/2015	04/22/2015	04/22/2015	10/28/2014	10/28/2014	10/28/2014	10/28/2014	01/13/2015	01/13/2015	01/13/2015	01/13/2015
			Field Sample ID	D0918135	M219C1	M219C1	D0420155	M219RA5	M219RA5	M219RA1	M219RA1X	M219RA1X	M219RA1X	M219RA3	M219RA3X	M219RA3X	M219RA3X
			SDG		CP106		CP697	1559416		CP568	1518011	CP568		CP635	1533695	CP635	
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.15	6.15	6.15	-	-	-	8.71	8.71	8.71	8.71	7.7	7.7	7.7	7.7
DO	mg/L	N	NS	7.34	7.34	7.34	-	-	-	3.03	3.03	3.03	3.03	4.31	4.31	4.31	4.31
ORP	millivolts	N	NS	-10.8	-10.8	-10.8	-	-	-	104.8	104.8	104.8	104.8	93.9	93.9	93.9	93.9
pH	pH Units	N	NS	6.19	6.19	6.19	-	-	-	6.15	6.15	6.15	6.15	6.38	6.38	6.38	6.38
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	150000	-	-	-	-	-	-	84000	-	-	-	128000	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	0.88UJ	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	1.3J	-	-	-	-	-	-	0.92J	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5J	-	-	-	-	0.8J	-	-	-	0.7J	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	260	-	280	-	1400.00n	1400	-	490.00	-	490	-	1100.00	-	1100
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	36700	-	-	-	-	-	-	52500	-	-	-	72000	-
Sulfide	ug/L	N	NS	-	54U	-	-	-	-	-	-	600U	-	-	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R	MW-219R	MW-220	MW-220	MW-220	MW-220
			Sample Date	04/20/2015	04/20/2015	07/06/2015	07/06/2015	07/06/2015	10/08/2015	10/08/2015	10/08/2015	11/08/2017	11/08/2017	11/23/2005	12/15/2005	12/16/2005	02/15/2006
			Field Sample ID	M219RA4	M219RA4X	M219RA6	M219RA6X	M219RA6X	M219RA7	M219RA7X	M219RA7X	M219RB6	M219RB6X	M220A1	M220A2	M220A2X	M220A3
			SDG	CP697	CP697	CP769	1579558	CP769	CP869	1525660	CP869	CQ873	CQ873	968826	971536	971536	978446
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.12	8.12	8.5	8.5	8.5	8.57	8.57	8.57	8.18	8.18	-	-	-	-
DO	mg/L	N	NS	1.32	1.32	0.2	0.2	0.2	3.17	3.17	3.17	6.54	6.54	-	-	-	-
ORP	millivolts	N	NS	152.3	152.3	236	236	236	200.2	200.2	200.2	14.6	14.6	-	-	-	-
pH	pH Units	N	NS	6.51	6.51	6.52	6.52	6.52	6.30	6.30	6.30	6.56	6.56	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	111000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	119000	-	-	110000	-	-	73900	-	162000	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	9.3U	-	9.3U
Arsenic	ug/L	Y	3	1.4J	-	1.4UJ	-	-	2.1	-	-	1.7J	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5J	-	-	1	-	-	0.8J	-	0.5U	7	-	6	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	4910	-	45100	-	49900
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	1660	-	-	37700	-	45300
Methane	ug/L	N	NS	-	-	-	700.00n	-	-	25.00n	-	-	-	-	-	4000	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	41J	-	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	120000	-	-	107000	-	-	127000	-	70500J	-	-	51600	-
Sulfide	ug/L	N	NS	-	54U	-	-	680U	-	-	680U	-	700U	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220
			Sample Date	02/16/2006	04/25/2006	04/26/2006	07/10/2006	07/11/2006	04/04/2012	04/04/2012	04/04/2012	04/04/2012	07/09/2012	10/19/2012	06/04/2013	06/04/2013	06/04/2013
			Field Sample ID	M220A3X	M220A4	M220A4X	M220A5	M220A5X	D0404123	M220A6	M220A6X	M220A6X	M220A7	M220A8	M220A9	M220A9X	M220A9X
			SDG	978446	987154	987154	996873	996873	RFU38	RFU38	4825	RFU38	RFV03	RFV86	RFZ78	RFZ78	
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	6.6	6.6	6.6	6.6	6.6	8.7	7.03	7.03	7.03
DO	mg/L	N	NS	-	-	-	-	-	0.76	0.76	0.76	0.76	0	0.41	7.94	7.94	7.94
ORP	millivolts	N	NS	-	-	-	-	-	-15.2	-15.2	-15.2	-15.2	-55	-34.1	-20.5	-20.5	-20.5
pH	pH Units	N	NS	-	-	-	-	-	6.03	6.03	6.03	6.03	6.03	6.04	6.18	6.18	6.18
Alkalinity to pH 4.5	ug/L	N	NS	76300	-	131000	-	148000	-	-	-	102000	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	-	-	460U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	74100	-
Arsenic	ug/L	N	3	-	9.3U	-	10U	-	9.6J	10.6J	-	-	-	14.8	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	14.3J	11.4J	-	-	-	-	14.9	-	-
Benzene	ug/L	N	1	5J	-	5	-	7	-	-	-	6	4J	-	-	2J	-
Iron	ug/L	N	300	-	51700	-	55600J	-	48700	48500	-	-	-	38500	-	-	-
Iron	ug/L	Y	300	-	49600	-	53300J	-	41600	42000	-	-	-	-	-	-	-
Methane	ug/L	N	NS	4700	-	4400	-	5900	-	-	6300	-	-	-	-	-	4300
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	-	-	40U	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	40UJ	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	35600J	-	28600J	-	42600	-	-	-	46800	-	-	-	50600	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	54U	-	-	-	54U	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220
			Sample Date	06/23/2014	06/23/2014	06/23/2014	08/27/2014	08/28/2014	08/28/2014	10/28/2014	10/28/2014	10/28/2014	10/28/2014	01/16/2015	01/16/2015	01/16/2015	01/16/2015
			Field Sample ID	M220B1	M220B1X	M220B1X	M220B2	M220B2X	M220B2X	M220B3	M220B3X	M220B3X	M220B3X	M220B5	M220B5X	M220B5X	M220B5X
			SDG	CP378	CP378		CP484	1501647	CP488	CP568	1518011	CP568		CP645	1535464	CP645	
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.45	8.45	8.45	6.55	12.1	12.1	6.6	6.6	6.6	6.6	6.55	6.55	6.55	6.55
DO	mg/L	N	NS	2.86	2.86	2.86	1.46	3.8	3.8	7.45	7.45	7.45	7.45	5.63	5.63	5.63	5.63
ORP	millivolts	N	NS	-69.3	-69.3	-69.3	-82	-64.3	-64.3	-80.3	-80.3	-80.3	-80.3	-68.4	-68.4	-68.4	-68.4
pH	pH Units	N	NS	5.90	5.90	5.90	6.30	6.37	6.37	6.53	6.53	6.53	6.53	7.36	7.36	7.36	7.36
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	505000	-	-	-	805000	-	-	1020000	-	-	-	729000	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	11.3	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	6.9	-	-	11.1	-	-	-	-	-	-	10.9	-	-	-
Benzene	ug/L	N	1	-	0.8J	-	-	-	2J	-	-	2	-	-	-	2	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	7200	-	6000.00	-	-	10000.00	-	10000	-	13000.00	-	13000
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	3200J	-	-	-	1800J	-	-	3000J	-	-	-	24500	-
Sulfide	ug/L	N	NS	-	2800	-	-	-	1700J	-	-	53100J	-	-	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220	MW-220
			Sample Date	04/22/2015	04/22/2015	04/22/2015	04/22/2015	07/10/2015	07/10/2015	07/10/2015	10/13/2015	10/13/2015	10/13/2015	11/10/2017	11/10/2017	02/19/2018
			Field Sample ID	M220B6	M220B6X	M220B6X	M220B6X	M220B7	M220B7X	M220B7X	M220B8	M220B8X	M220B8X	M220C5	M220C5X	D02191815
			SDG	CP691	1559416	CP691		CP776	1579559	CP776	CP876	1604059	CP876	CQ878	CQ878	CQ984
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.7	9.7	9.7	9.7	11.5	11.5	11.5	11.05	11.05	11.05	8.74	8.74	-
DO	mg/L	N	NS	3.43	3.43	3.43	3.43	7.93	7.93	7.93	3.19	3.19	3.19	2.84	2.84	-
ORP	millivolts	N	NS	-138.2	-138.2	-138.2	-138.2	-72	-72	-72	-43.1	-43.1	-43.1	-77.6	-77.6	-
pH	pH Units	N	NS	6.69	6.69	6.69	6.69	7.20	7.20	7.20	5.84	5.84	5.84	6.47	6.47	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	621000J	-	-	-	653000	-	-	607000	-	401000	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	22.9	3.7
Arsenic	ug/L	Y	3	7.4J	-	-	-	10.6	-	-	9.4	-	-	7.1	-	-
Benzene	ug/L	N	1	-	-	4J	-	-	-	3	-	-	3	-	2	1J
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	56600	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	14000.00n	-	1400	-	12000.00n	-	-	11000.00n	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	140	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	9700J	-	-	-	9800	-	-	7800	-	63900J	-
Sulfide	ug/L	N	NS	-	-	680UJ	-	-	-	680U	-	-	680U	-	770J	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-220	MW-220	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221
			Sample Date	02/19/2018	02/19/2018	01/09/2006	01/23/2006	01/24/2006	05/17/2006	05/18/2006	08/23/2006	08/24/2006	06/02/2008	06/03/2008	07/28/2009	07/29/2009	09/14/2011
			Field Sample ID	M220C6	M220C6X	M221A1	M221A2	M221A2X	M221A3	M221A3X	M221A4	M221A4X	M221A6	M221A6X	M221A7	M221A7X	M221A8
			SDG	CQ984	CQ984	974021	975512	975512	990164	990164	1003077	1003077	1094220	1094221	1155531	1155531	RFT68
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	6.15	5.89	-	-	-	-	-	6.35	-	6.59	-	6.02
DO	mg/L	N	NS	-	-	1.22	1.89	-	-	-	-	-	0.31	-	2.83	-	10.69
ORP	millivolts	N	NS	-	-	16	146	-	-	-	-	-	98	-	87	-	104
pH	pH Units	N	NS	-	-	7.21	7.78	-	-	-	-	-	6.53	-	6.15	-	6.72
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	215000	-	211000	-	221000	-	195000	-	159000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	204000	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	3.8	-	-	9.3U	-	9.3U	-	10U	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.7J	0.5U	-	0.5U	-	0.5U	-	0.6J	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	-	-	37.8U	-	468	-	103J	-	52.2U	-	226	-	213
Iron	ug/L	Y	300	-	-	-	37.8U	-	66.7U	-	52.2U	-	52.2U	-	52.2U	-	76.4J
Methane	ug/L	N	NS	-	-	-	-	13	-	8.0	-	8.3	-	8.6	-	25	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	720J	-	-	970	-	2200	-	730	-	1000	-	760	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	144000J	-	-	78600	-	71300	-	90600	-	78200	-	67900	-
Sulfide	ug/L	N	NS	-	700U	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-221	MW-222	MW-222	MW-222
			Sample Date	09/15/2011	06/20/2012	06/21/2012	08/29/2013	08/30/2013	08/13/2014	08/14/2014	04/25/2016	04/26/2016	06/19/2017	06/20/2017	01/09/2006	01/23/2006	01/24/2006
			Field Sample ID	M221A8X	M221B1	M221B1X	M221B2	M221B2X	M221B3	M221B3X	M221B4	M221B4X	M221B5	M221B5X	M222A1	M222A2	M222A2X
			SDG	RFT68	RFU87	RFU87	CS003	CS003	CS142	CS142	CS391	CS391	CS575	CS575	974021	975512	975512
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.18	6.28	7.13	7.5	6.91	7.46	8.35	-	7.16	-	7.12	6.06	-	-
DO	mg/L	N	NS	0.25	5.22	0.36	2.18	0.5	1.16	-	-	5.12	-	8.9	5.12	-	-
ORP	millivolts	N	NS	79	140	146	-282	-332	207	-	-	279	-	235	43	-	-
pH	pH Units	N	NS	6.36	8.36	5.86	6.71	6.62	6.71	-	-	6.95	-	7.81	6.35	-	-
Alkalinity to pH 4.5	ug/L	N	NS	206000	-	-	-	-	-	-	-	-	-	-	-	-	142000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	700U	-	-	-	-	-	-	-	-	-	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	700U	-	700U	-	700U	-	1700U	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	204000	-	238000	-	210000	-	220000	-	214000	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	9.3U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.7J	-	0.5J	-	0.5J	-	0.5J	-	0.5J	4J	-	3J
Iron	ug/L	N	300	-	2370	-	340	-	33.4U	-	33.3U	-	74.7U	-	-	851	-
Iron	ug/L	Y	300	-	128J	-	43.0U	-	33.4U	-	33.3U	-	74.7U	-	-	527	-
Methane	ug/L	N	NS	62	-	14J	-	24	-	11	-	12	-	3.0U	-	-	51
Nitrogen, Nitrate as N	ug/L	N	10000	490	-	760	-	550	-	540	-	770	-	950	-	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	73600	-	80400	-	81300	-	85000	-	82600	-	61800	-	-	88400
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222
			Sample Date	05/17/2006	05/18/2006	08/23/2006	08/24/2006	06/02/2008	06/03/2008	07/28/2009	07/29/2009	08/11/2010	08/12/2010	09/14/2011	09/15/2011	06/20/2012	06/21/2012
			Field Sample ID	M222A3	M222A3X	M222A4	M222A4X	M222A6	M222A6X	M222A7	M222A7X	M222A8	M222A8X	M222A9	M222A9X	M222B2	M222B2X
			SDG	990164	990164	1003077	1003077	1094220	1094221	1155531	1155531	RFS63	RFS63	RFT68	RFT68	RFU87	RFU87
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	5.79	-	5.65	-	6.21	7.32	5.15	6.14	5.32	6.16
DO	mg/L	N	NS	-	-	-	-	0.3	-	2.51	-	2.22	0.41	4.24	0.36	1.67	0
ORP	millivolts	N	NS	-	-	-	-	150	-	70	-	23	24	100	102	106	122
pH	pH Units	N	NS	-	-	-	-	6.04	-	6.01	-	7.11	7.65	6.45	6.12	9	5.84
Alkalinity to pH 4.5	ug/L	N	NS	-	134000	-	131000	-	149000	-	136000	-	136000	-	131000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	700U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	144000
Arsenic	ug/L	N	3	9.3U	-	10U	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	2J	-	2J	-	0.9J	-	2J	-	2J	-	2J	-	2J
Iron	ug/L	N	300	174J	-	757J	-	209	-	369	-	183J	-	242	-	281	-
Iron	ug/L	Y	300	66.7U	-	353J	-	52.2U	-	52.2U	-	96.3J	-	182J	-	33.3U	-
Methane	ug/L	N	NS	-	33	-	25	-	6.4	-	29	-	25	-	22	-	38
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	77J	-	40U	-	40U	-	40U	-	57J
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	59500	-	67400	-	50700	-	56900	-	52800	-	52400	-	46500
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-222	MW-224	MW-224	MW-224	MW-224	MW-224	MW-224
			Sample Date	08/28/2013	08/29/2013	08/13/2014	08/14/2014	04/25/2016	04/26/2016	06/19/2017	06/20/2017	11/23/2005	12/08/2005	12/08/2005	03/01/2006	03/02/2006	05/22/2006
			Field Sample ID	M222B3	M222B3X	M222B4	M222B4X	M222B5	M222B5X	M222B6	M222B6X	M224A1	M224A2	M224A2X	M224A3	M224A3X	M224A4
			SDG	CS002	CS002	CS142	CS142	CS391	CS391	CS575	CS575	968826	970442	970442	980099	980099	990703
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.06	6.27	5.64	6.65	-	6.07	-	5.71	-	10.75	10.75	-	-	-
DO	mg/L	N	NS	1.16	0.72	2.19	2.2	-	7.54	-	7.43	-	7.68	7.68	-	-	-
ORP	millivolts	N	NS	-333	-227	204	-315	-	235	-	250	-	247	247	-	-	-
pH	pH Units	N	NS	6.34	6.34	6.51	6.45	-	6.82	-	7.48	-	3.91	3.91	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	460U	-	460U	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	1700U	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	155000	-	155000	-	125000	-	137000	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	9.3U	-	9.3U	-	10U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	2J	-	3	-	2J	-	2J	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	50.0J	-	150J	-	645	-	490	-	-	16300	-	35200	-	41100
Iron	ug/L	Y	300	43.0U	-	65.3J	-	33.3U	-	74.7U	-	-	9150	-	30300	-	39200
Methane	ug/L	N	NS	-	32	-	26	-	29	-	4.4J	-	-	7.7	-	19	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	130	-	490	-	-	40U	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	46400	-	54600	-	48900	-	56600	-	-	170000J	-	115000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-224	MW-224	MW-224	MW-224	MW-224	MW-224	MW-224	MW-224	MW-224	MW-224	MW-225	MW-225	MW-225	MW-225
			Sample Date	05/22/2006	08/21/2006	08/22/2006	10/03/2007	10/04/2007	06/10/2008	06/10/2008	06/10/2008	09/14/2009	09/15/2009	11/23/2005	12/07/2005	12/08/2005	03/01/2006
			Field Sample ID	M224A4X	M224A5	M224A5X	M224A6	M224A6X	M224A7	M224A7	M224A7X	M224A8	M224A8X	M225A1	M225A2	M225A2X	M225A3
			SDG	990703	1002619	1002619	1059557	1059557	1095466	1095661	1095466	1161893	1161893	968826	970442	970442	980532
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	9.97	-	9.52	9.52	9.52	9.84	-	-	5.07	-	-
DO	mg/L	N	NS	-	-	-	1.37	-	0.92	0.92	0.92	6.39	-	-	6.04	-	-
ORP	millivolts	N	NS	-	-	-	154	-	208	208	208	280	-	-	103	-	-
pH	pH Units	N	NS	-	-	-	4.18	-	4.41	4.41	4.41	2.9	-	-	6.67	-	-
Alkalinity to pH 4.5	ug/L	N	NS	460U	-	460U	-	460U	-	-	460U	-	460U	-	-	104000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	-	460U	-	460U	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10U	-	10.0U	-	-	-	-	-	-	-	9.3U	-	9.3U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5U	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	37900J	-	29500	-	41500	-	-	35000	-	-	578	-	418
Iron	ug/L	Y	300	-	44400J	-	28600	-	-	40400	-	32700	-	-	37.8U	-	66.7U
Methane	ug/L	N	NS	16	-	30	-	52	-	-	18	-	25	-	-	2.0U	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	-	40U	-	40U	-	-	11300	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	161000	-	141000	-	142000	-	-	250000U	-	140000	-	-	165000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-225	MW-225	MW-225	MW-225	MW-225	MW-225	MW-225	MW-225	MW-225	MW-226	MW-226	MW-226	MW-226	MW-226
			Sample Date	03/02/2006	05/17/2006	05/18/2006	08/21/2006	08/22/2006	06/09/2008	06/10/2008	09/14/2009	09/15/2009	11/23/2005	12/07/2005	12/08/2005	03/01/2006	03/02/2006
			Field Sample ID	M225A3X	M225A4	M225A4X	M225A5	M225A5X	M225A7	M225A7X	M225A8	M225A8X	M226A1	M226A2	M226A2X	M226A3	M226A3X
			SDG	980532	990164	990164	1002620	1002620	1095396	1095396	1161893	1161893	968826	970442	970442	980532	980532
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	3.59	-	4.28	-	-	9.42	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	1.59	-	5.53	-	-	0.93	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	198	-	-87	-	-	-76	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	5.94	-	5.92	-	-	11.94	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	93800	-	86900	-	85600	-	97100	-	93800	-	-	215000	-	177000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.3U	-	10U	-	-	-	7.2U	-	-	9.3U	-	9.3U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	902	-	465J	-	52.2U	-	4630	-	-	2870	-	2060	-
Iron	ug/L	Y	300	-	66.7U	-	52.2U	-	282	-	758	-	-	68.0J	-	66.7U	-
Methane	ug/L	N	NS	2.0U	-	2.0U	-	2.0U	-	2.0U	-	5.0J	-	-	18	-	6.3
Nitrogen, Nitrate as N	ug/L	N	10000	8300	-	7200	-	8000	-	5100	-	2300	-	-	40U	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	148000	-	119000	-	133000	-	128000	-	134000	-	-	46600J	-	97200
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226	MW-226
			Sample Date	05/17/2006	05/18/2006	08/21/2006	08/22/2006	06/09/2008	06/10/2008	09/14/2009	09/15/2009	08/11/2010	08/12/2010	09/14/2011	09/15/2011	06/20/2012	06/21/2012
			Field Sample ID	M226A4	M226A4X	M226A5	M226A5X	M226A7	M226A7X	M226A8	M226A8X	M226A9	M226A9X	M226B1	M226B1X	M226B3	M226B3X
			SDG	990164	990164	1002620	1002620	1095396	1095396	1161893	1161893	RFS63	RFS63	RFT68	RFT68	RFU87	RFU87
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	10.14	-	-	-	10.01	-	9.04	-	-	-	8.01	11.88	8.49	12.32
DO	mg/L	N	NS	1.58	-	-	-	1.74	-	6.55	-	-	-	3.9	5.81	4.63	6.79
ORP	millivolts	N	NS	102	-	-	-	137	-	4	-	-	-	93	217	108	154
pH	pH Units	N	NS	6.95	-	-	-	6.91	-	5.92	-	-	-	6.91	6.57	7.25	6.2
Alkalinity to pH 4.5	ug/L	N	NS	-	185000	-	191000	-	208000	-	175000	-	151000	-	173000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	700U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	178000
Arsenic	ug/L	N	3	9.3U	-	10U	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	725	-	308J	-	600	-	98.8J	-	135J	-	68.0J	-	265	-
Iron	ug/L	Y	300	66.7U	-	52.2U	-	52.2U	-	52.2U	-	52.2U	-	70.1J	-	33.3U	-
Methane	ug/L	N	NS	-	8.0	-	7.6	-	11	-	19	-	11J	-	5.0J	-	5.7J
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	34700J	-	37800J	-	50000U	-	33300J	-	25000U	-	46900J	-	37900
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-226	MW-226	MW-226	MW-226	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230
			Sample Date	08/29/2013	08/30/2013	08/13/2014	08/14/2014	11/23/2005	05/23/2006	07/06/2006	07/07/2006	06/04/2008	06/05/2008	09/01/2009	09/02/2009	07/28/2010	07/29/2010
			Field Sample ID	M226B4	M226B4X	M226B5	M226B5X	M230A1	M230A1X	M230A2	M230A2X	M230A3	M230A3X	M230A4	M230A4X	M230A5	M230A5X
			SDG	CS003	CS003	CS142	CS142	990703	990703	996484	996484	1094772	1094772	1160329	1160329	RFS60	RFS60
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	10.01	11.69	9.45	11.64	-	-	-	-	6.35	-	5.89	-	7.37	7.46
DO	mg/L	N	NS	4.09	5.54	1.95	-	-	-	-	-	0.2	-	5.72	-	3.59	0
ORP	millivolts	N	NS	-199	-82	199	-	-	-	-	-	250	-	13	-	42	113
pH	pH Units	N	NS	7.04	6.8	6.88	-	-	-	-	-	4.49	-	5.42	-	5.89	5.53
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	13900	-	27800	-	70800	-	79900	-	2600
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	184000	-	162000	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	10U	-	10U	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	1J	-	1J	-	1J	-	0.5U	-	0.5U
Iron	ug/L	N	300	67.8J	-	35.8J	-	10900	-	13500J	-	3400	-	15000	-	28900	-
Iron	ug/L	Y	300	43.0U	-	33.4U	-	10700	-	12100J	-	3590	-	11300	-	9590	-
Methane	ug/L	N	NS	-	3.0U	-	3.0U	-	160	-	86	-	120	-	340	-	120
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	71J	-	40U	-	40U	-	40U	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	42400	-	28600J	-	187000	-	157000	-	153000	-	137000	-	147000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230	MW-230
			Sample Date	08/22/2011	08/23/2011	06/12/2012	06/13/2012	08/05/2013	08/06/2013	08/11/2014	08/12/2014	12/02/2015	12/03/2015	04/27/2016	04/28/2016	06/14/2017	06/15/2017
			Field Sample ID	M230A6	M230A6X	M230A7	M230A7X	M230A8	M230A8X	M230A9	M230A9X	M230B1	M230B1X	M230B2	M230B2X	M230B3	M230B3X
			SDG	RFT62	RFT62	RFU82	RFU82	RFB82	RFB82	CS140	CS140	CS323	CS323	CS392	CS392	CS573	CS573
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.89	5.28	6.57	5.44	-	-	7.53	7.57	-	7.66	-	7.82	-	6.86
DO	mg/L	N	NS	3.83	2.43	4.1	0.97	-	-	0.89	1.99	-	5.33	-	4.24	-	3.31
ORP	millivolts	N	NS	121	18	47	70	-	-	256	-263	-	50	-	199	-	-90
pH	pH Units	N	NS	5.40	6.24	6.45	6.14	-	-	5.34	5.12	-	5.53	-	6.01	-	7.8
Alkalinity to pH 4.5	ug/L	N	NS	-	126000	-	64900	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	700U	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	700U	-	700U	-	700U	-	700U	-	1700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	173000	-	1400U	-	1700J	-	15400	-	157000
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.6J	-	0.5U	-	3U	-	5U	-	5U	-	0.6J
Iron	ug/L	N	300	10000	-	7170	-	14300	-	2090	-	4350	-	17800	-	49900	-
Iron	ug/L	Y	300	9080	-	7320	-	13500	-	1790	-	4160	-	18300	-	47900	-
Methane	ug/L	N	NS	-	170	-	190	-	470	-	470	-	680	-	590	-	300
Nitrogen, Nitrate as N	ug/L	N	10000	-	55J	-	1000	-	50J	-	450	-	40U	-	40U	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	110000	-	95100	-	50300	-	114000	-	168000	-	188000	-	102000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-230	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335
			Sample Date	05/09/2018	10/18/2012	10/18/2012	10/18/2012	12/14/2012	12/14/2012	12/14/2012	02/15/2013	02/15/2013	02/15/2013	04/17/2013	04/18/2013	04/18/2013	09/20/2013
			Field Sample ID	M230B4	M335A1	M335A1X	M335A1X	M335A2	M335A2X	M335A2X	M335A3	M335A3X	M335A3X	M335A4	M335A4X	M335A4X	M335A5
			SDG	CR055	RFV81	RFV81		RFX19	RFX19		RFX65	RFX65		RFY89	RFY94		CP109
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	10.2	10.2	10.2	10.92	10.92	10.92	9.54	9.54	9.54	9.85	16.98	16.98	10.25
DO	mg/L	N	NS	-	8.5	8.5	8.5	0	0	0	0.13	0.13	0.13	1.69	1.7	1.7	3.29
ORP	millivolts	N	NS	-	51	51	51	-106.8	-106.8	-106.8	-119.7	-119.7	-119.7	-91.2	-93.1	-93.1	-102.7
pH	pH Units	N	NS	-	5.90	5.90	5.90	6.43	6.43	6.43	6.58	6.58	6.58	6.44	6.46	6.46	6.57
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	-	700U	-	-	700U	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	188000	-	-	700U	-	-	1920000	-	-	1460000	-	1650000
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	2.7	1.8J	-	-	11.3	-	-	7.4	-	-	13.7	-	-	-
Benzene	ug/L	N	1	-	-	41	-	-	5	-	-	10	-	-	29J	-	28
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	4970	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	4600	-	-	8200	-	-	150	-	-	13000	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	-	-	-	-	800U	-	-	400U	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	126000	-	-	250000U	-	-	10000U	-	-	10000U	-	12500U
Sulfide	ug/L	N	NS	-	-	54U	-	-	220U	-	-	54U	-	-	150J	-	110U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335
			Sample Date	09/20/2013	12/17/2013	12/18/2013	12/18/2013	03/11/2014	03/12/2014	03/12/2014	06/20/2014	06/20/2014	06/20/2014	01/19/2015	01/19/2015	01/19/2015	01/19/2015
			Field Sample ID	M335A5	M335A6	M335A6X	M335A6X	M335A7	M335A7X	M335A7X	M335A8	M335A8X	M335A8X	M335A9	M335A9X	M335A9X	M335A9X
			SDG		CP242	CP245		CP270	CP273		CP374	CP374		CP646	1535463	CP646	
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	10.25	14.9	14.61	14.61	18.1	11.24	11.24	12.68	12.68	12.68	9.59	9.59	9.59	9.59
DO	mg/L	N	NS	3.29	5.09	13.51	13.51	0.93	1.35	1.35	1.29	1.29	1.29	1.53	1.53	1.53	1.53
ORP	millivolts	N	NS	-102.7	-75.9	-106.4	-106.4	-87	-50.9	-50.9	-34.1	-34.1	-34.1	-2.4	-2.4	-2.4	-2.4
pH	pH Units	N	NS	6.57	6.65	6.59	6.59	7.04	6.83	6.83	6.61	6.61	6.61	6.73	6.73	6.73	6.73
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	-	700U	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	1220000	-	-	1160000	-	-	1000000	-	-	-	1050000	-
Arsenic	ug/L	N	3	-	-	-	-	16.3	-	-	7.8	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	22.3	-	-	12.2	-	-	-	-	-	7.7	-	-	-
Benzene	ug/L	N	1	-	-	24	-	-	17	-	-	10	-	-	-	21	-
Iron	ug/L	N	300	-	-	-	-	46900	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	76000	-	-	26200	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	17000	-	-	12000	-	-	11000	-	-	8900	-	15000.00	-	15000
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	5000U	-	-	5000U	-	-	2400J	-	-	-	1500U	-
Sulfide	ug/L	N	NS	-	-	54U	-	-	54U	-	-	1200U	-	-	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-335	MW-359	MW-359
			Sample Date	04/22/2015	04/22/2015	04/22/2015	04/22/2015	07/08/2015	07/08/2015	07/08/2015	10/08/2015	10/08/2015	10/08/2015	11/06/2017	11/07/2017	06/05/2013	06/06/2013
			Field Sample ID	M335B1	M335B1X	M335B1X	M335B1X	M335B2	M335B2X	M335B2X	M335B3	M335B3X	M335B3X	M335B9	M335B9X	M359A1	M359A1X
			SDG	CP691	1559416	CP691		CP772	1579854	CP772	CP869	1525660	CP869	CQ868	CQ870	RFZ87	RFZ87
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	12.35	12.35	12.35	12.35	18.7	18.7	18.7	20.29	20.29	20.29	-	11.23	11.37	11.72
DO	mg/L	N	NS	4.92	4.92	4.92	4.92	2.8	2.8	2.8	0.92	0.92	0.92	-	5.74	0.65	0.27
ORP	millivolts	N	NS	-103.4	-103.4	-103.4	-103.4	-103.5	-103.5	-103.5	-99.4	-99.4	-99.4	-	-64.9	89	-170
pH	pH Units	N	NS	6.54	6.54	6.54	6.54	6.81	6.81	6.81	6.65	6.65	6.65	-	6.73	7.08	6.57
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	873000J	-	-	-	834000	-	-	1070000	-	435000	-	112000
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	0.87J	-
Arsenic	ug/L	Y	3	9.9J	-	-	-	17.4	-	-	14.1	-	-	25.2	-	-	-
Benzene	ug/L	N	1	-	-	24J	-	-	-	27	-	-	31	-	9	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	3650	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	1310	-
Methane	ug/L	N	NS	-	14000.00n	-	14000	-	15000.00n	-	-	13000.00n	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	40U	-	240
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	2500J	-	-	-	3100J	-	-	3900J	-	46400J-	-	346000
Sulfide	ug/L	N	NS	-	-	1400UJ	-	-	-	680U	-	-	680U	-	700U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359
			Sample Date	09/12/2013	09/13/2013	11/18/2013	11/19/2013	01/28/2014	01/29/2014	04/03/2014	04/04/2014	07/01/2014	07/01/2014	11/25/2014	11/26/2014	04/06/2015	04/07/2015
			Field Sample ID	M359A2	M359A2X	M359A3	M359A3X	M359A4	M359A4X	M359A5	M359A5X	M359A6	M359A6X	M359A7	M359A7X	M359A8	M359A8X
			SDG	CS010	CS010	CS046	CS046	CS058	CS058	CS081	CS081	CS121	CS121	CS191	CS191	CS216	CS216
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	11.81	11.91	13.38	13.58	12.99	12.9	11.93	11.97	11.62	11.62	12.18	12.07	11.28	11.51
DO	mg/L	N	NS	1.22	0.43	1.05	4.24	5.1	2.01	1.66	-0.54	1.3	1.3	2.46	1.99	4.72	1.24
ORP	millivolts	N	NS	-502	-523	-55	-275	32	-20	-453	-571	177	177	-229	-372	-44	-41
pH	pH Units	N	NS	6.72	6.55	5.73	6.46	6.94	6.60	6.51	6.47	6.58	6.58	6.69	6.53	6.25	6.28
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	700U	-	700U	-	700U	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	137000	-	150000	-	139000	-	124000	-	111000	-	148000	-	-
Arsenic	ug/L	N	3	0.48J	-	1.9J	-	2.2	-	2.6	-	0.82U	-	0.82U	-	1.6J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	0.93J	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	481	-	1440	-	2600	-	4950	-	551	-	1360	-	4870	-
Iron	ug/L	Y	300	540	-	765	-	1310	-	1610	-	401	-	1270	-	3330	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	89J	-	40U	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	296000	-	125000U	-	171000	-	192000	-	222000	-	200000	-	173000
Sulfide	ug/L	N	NS	-	600U	-	1600J	-	600U	-	600U	-	600U	-	600U	-	680U

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-359	MW-360	MW-360
			Sample Date	05/12/2015	05/13/2015	08/17/2015	08/17/2015	08/18/2015	08/18/2015	10/26/2015	10/26/2015	10/27/2015	10/27/2015	09/19/2017	09/20/2017	06/05/2013	06/06/2013
			Field Sample ID	M359A9	M359A9X	D0817151	M359B1	D0818151	M359B1X	D1026151	M359B2	D1027151	M359B2X	M359B6	M359B6X	M360A1	M360A1X
			SDG	CS231	CS231	CS273	CS273	CS273	CS273	CS303	CS303	CS303	CS303	CS606	CS606	RFZ87	RFZ87
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	12.18	-	-	12.14	12.14	-	-	14.06	14.06	-	11.32	5.72	6.15
DO	mg/L	N	NS	-	1.38	-	-	9.19	9.19	-	-	5.76	5.76	-	2.48	1.69	3.67
ORP	millivolts	N	NS	-	-36	-	-	36	36	-	-	229	229	-	19	17	-42
pH	pH Units	N	NS	-	6.51	-	-	6.84	6.84	-	-	6.54	6.54	-	7.07	6.62	14.67
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	-	700U	700U	-	-	700U	700U	-	1700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	125000	-	-	134000	134000	-	-	157000	159000	-	183000	-	700U
Arsenic	ug/L	N	3	0.82U	-	0.54U	0.54U	-	-	0.54U	0.66J	-	-	0.72U	-	0.78J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	-	0.5U	0.5U	-	-	0.5U	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	717	-	759	687	-	-	1060	1170	-	-	1080	-	4360	-
Iron	ug/L	Y	300	623	-	710	630	-	-	766	643	-	-	1210	-	3580	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	120	-	-	40U	40U	-	-	40U	40U	-	40U	-	220
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	189000	-	-	240000	245000	-	-	209000	207000	-	231000	-	452000
Sulfide	ug/L	N	NS	-	680U	-	-	680U	680U	-	-	680U	680U	-	700U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-360	MW-360	MW-360	MW-360	MW-360	MW-360	MW-360	MW-360	MW-360	MW-360	MW-360	MW-360	MW-360	MW-360
			Sample Date	09/16/2013	09/16/2013	11/20/2013	11/21/2013	01/28/2014	01/29/2014	04/03/2014	04/04/2014	06/30/2014	07/01/2014	11/25/2014	11/26/2014	04/06/2015	04/07/2015
			Field Sample ID	M360A2	M360A2X	M360A3	M360A3X	M360A4	M360A4X	M360A5	M360A5X	M360A6	M360A6X	M360A7	M360A7X	M360A8	M360A8X
			SDG	CS011	CS011	CS047	CS047	CS058	CS058	CS081	CS081	CS120	CS120	CS191	CS191	CS216	CS216
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.83	6.83	8.5	8.74	7.08	10.24	8.14	5.97	6.05	6.14	6.52	6.29	5.39	5.59
DO	mg/L	N	NS	7.03	7.03	1.79	4.55	5.77	6.87	1.36	2.81	4.73	5.13	2.89	5.5	1.76	6.99
ORP	millivolts	N	NS	-239	-239	-63	-46	-7	33	-262	19	219	166	-118	-82	185	280
pH	pH Units	N	NS	5.08	5.08	5.18	4.49	5.84	4.91	4.51	5.03	4.63	5.26	5.06	4.47	5.12	4.81
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	700U	-	700U	-	700U	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	700U	-	700U	-	700U	-	700U	-	700U	-	700U	-	-
Arsenic	ug/L	N	3	1.4J	-	1.6J	-	1.3J	-	2.0J	-	0.82U	-	1.7J	-	2.3	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	0.83J	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	218	-	3790	-	5170	-	8890	-	385J	-	1040	-	395	-
Iron	ug/L	Y	300	59.5J	-	2670	-	137J	-	64.8J	-	186U	-	596	-	224	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	200	-	210	-	190	-	160	-	72J
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	498000	-	529000	-	493000	-	493000	-	439000	-	517000	-	499000
Sulfide	ug/L	N	NS	-	600U	-	600U	-	600U	-	600U	-	600U	-	600U	-	680U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-360	MW-360	MW-360	MW-360	MW-360	MW-360	MW-360	MW-360	MW-361	MW-361	MW-361	MW-361	MW-361	MW-361
			Sample Date	05/12/2015	05/13/2015	08/17/2015	08/18/2015	10/26/2015	10/27/2015	09/19/2017	09/20/2017	06/06/2013	06/06/2013	09/16/2013	09/16/2013	11/20/2013	11/21/2013
			Field Sample ID	M360A9	M360A9X	M360B1	M360B1X	M360B2	M360B2X	M360B6	M360B6X	M361A1	M361A1X	M361A2	M361A2X	M361A3	M361A3X
			SDG	CS231	CS231	CS273	CS273	CS303	CS303	CS606	CS606	RFZ87	RFZ87	CS011	CS011	CS047	CS047
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	6.48	-	6.64	-	6.91	-	5.61	13.71	13.71	12.65	12.65	12.47	11.2
DO	mg/L	N	NS	-	4.67	-	4.6	-	0.78	-	2.8	1.39	1.39	2.12	2.12	2.02	0.85
ORP	millivolts	N	NS	-	159	-	111	-	215	-	41	-56	-56	-146	-146	-86	-173
pH	pH Units	N	NS	-	4.82	-	4.89	-	5.63	-	6.79	6.27	6.27	5.51	5.51	5.97	5.29
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	1700U	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	700U	-	700U	-	700U	-	1700U	-	4600	-	4900	-	10000
Arsenic	ug/L	N	3	2.0	-	1.8J	-	1.9J	-	1.7J	-	0.80J	-	0.62J	-	0.48J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	321	-	136J	-	247	-	665	-	579000	-	618000	-	533000	-
Iron	ug/L	Y	300	95.2J	-	73.8J	-	145J	-	408	-	594000	-	609000	-	579000	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40J	-	40U	-	140	-	40U	-	40U	-	40U	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	257000	-	469000	-	533000	-	507000	-	372000	-	292000	-	235000
Sulfide	ug/L	N	NS	-	680U	-	680U	-	680U	-	700U	-	780J	-	1500J	-	2600

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-361	MW-361	MW-361	MW-361	MW-361	MW-361	MW-361	MW-361	MW-361	MW-361	MW-361	MW-361	MW-361	MW-361
			Sample Date	01/30/2014	01/30/2014	01/31/2014	01/31/2014	04/07/2014	04/08/2014	06/30/2014	07/01/2014	02/11/2015	02/12/2015	05/14/2015	05/15/2015	08/17/2015	08/18/2015
			Field Sample ID	D0130141	M361A4	D0131141	M361A4X	M361A5	M361A5X	M361A6	M361A6X	M361A7	M361A7X	M361A8	M361A8X	M361A9	M361A9X
			SDG	CS059	CS059	CS059	CS059	CS082	CS082	CS120	CS120	CS200	CS200	CS232	CS232	CS273	CS273
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	13.28	15.68	12.53	12.76	13.22	13.04	-	13.28	-	12.37
DO	mg/L	N	NS	-	-	-	-	3.82	4.8	1.16	2.5	1.57	13.05	-	2.99	-	1.11
ORP	millivolts	N	NS	-	-	-	-	-72	-15	83	147	-3.9	122	-	-70	-	-40
pH	pH Units	N	NS	-	-	-	-	5.57	3.96	5.45	4.20	5.54	5.79	-	5.58	-	6.16
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	700U	-	700U	-	700U	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	700U	700U	-	700U	-	700U	-	700U	-	700U	-	700U
Arsenic	ug/L	N	3	0.42U	0.42U	-	-	0.88J	-	0.82U	-	0.82U	-	0.82U	-	0.54U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	480000	539000	-	-	566000	-	571000	-	567000	-	604000	-	587000	-
Iron	ug/L	Y	300	490000	548000	-	-	567000	-	588000	-	543000	-	551000	-	602000	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	200U	200U	-	40U	-	40U	-	40U	-	40U	-	270
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	274000	292000	-	258000	-	218000	-	252000	-	248000	-	194000
Sulfide	ug/L	N	NS	-	-	3400	1000J	-	1500J	-	2600	-	2600J	-	3000	-	2300

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-361	MW-361	MW-361	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362
			Sample Date	11/03/2015	11/04/2015	05/10/2016	06/06/2013	06/06/2013	09/18/2013	09/19/2013	11/20/2013	11/20/2013	11/21/2013	11/21/2013	01/30/2014	01/31/2014	04/16/2014
			Field Sample ID	M361B1	M361B1X	M361B2X	M362A1	M362A1X	M362A2	M362A2X	D1120131	M362A3	D1121131	M362A3X	M362A4	M362A4X	M362A5
			SDG	CS308	CS308	CS397	RFZ87	RFZ87	CS012	CS012	CS047	CS047	CS047	CS047	CS059	CS059	CS087
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	12.64	13.38	12.83	12.83	12.87	14.17	12.92	12.92	14.92	14.92	9.92	13.34	17.05
DO	mg/L	N	NS	-	9.89	3.03	1.21	1.21	1.28	2.83	1.96	1.96	1.99	1.99	2.41	3.9	5.46
ORP	millivolts	N	NS	-	-71	148	40	40	-337	11	-106	-106	-142	-142	-195	46	-124
pH	pH Units	N	NS	-	5.88	5.96	5.63	5.63	5.88	5.08	5.84	5.84	5.21	5.21	5.58	5.11	5.63
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	700U	-	700U	-	700U	-	-	700U	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	700U	700U	-	1900J	-	16500	-	-	5700	8200	-	34400	-
Arsenic	ug/L	N	3	0.85J	-	-	0.66J	-	1.0J	-	0.42U	0.42U	-	-	0.42U	-	0.78U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	-	0.5U	-	-	0.5U	0.5U	-	0.5U	-
Iron	ug/L	N	300	402000	-	-	33700	-	64800	-	34600	31800	-	-	17600	-	2650
Iron	ug/L	Y	300	382000	-	-	32600	-	64300	-	33000	34100	-	-	12200	-	2370
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	40U	-	40U	-	40U	-	-	40U	40U	-	80U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2500U	98500	-	194000	-	223000	-	-	211000	217000	-	191000	-
Sulfide	ug/L	N	NS	-	1800J	3100	-	600U	-	600U	-	-	600U	600U	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362	MW-362
			Sample Date	04/17/2014	07/24/2014	07/25/2014	11/25/2014	11/26/2014	04/01/2015	04/01/2015	06/15/2015	06/16/2015	08/19/2015	08/20/2015	11/03/2015	11/04/2015	09/20/2017
			Field Sample ID	M362A5X	M362A6	M362A6X	M362A7	M362A7X	M362A8	M362A8X	M362A9	M362A9X	M362B1	M362B1X	M362B2	M362B2X	M362B6
			SDG	CS087	CS131	CS131	CS191	CS191	CS215	CS215	CS252	CS252	CS274	CS274	CS308	CS308	CS607
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	17.92	12.36	14.48	12.11	14.5	13.82	13.82	-	15.24	-	14.38	-	15.19	-
DO	mg/L	N	NS	4.97	2.96	2.23	2.51	2.59	3.44	3.44	-	3.66	-	3.73	-	5.85	-
ORP	millivolts	N	NS	-52	179	227	-74	-219	11	11	-	-4	-	58	-	-37	-
pH	pH Units	N	NS	5.50	5.34	4.20	5.31	5.20	5.35	5.35	-	5.75	-	6.57	-	6.40	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	700U	-	700U	-	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	700U	-	700U	-	2800	-	700U	-	4100	-	700U	-	700U	-
Arsenic	ug/L	N	3	-	0.82U	-	0.82U	-	0.82U	-	0.82U	-	0.54U	-	1.0J	-	0.72U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	4320	-	56500	-	9040	-	20600	-	28400	-	77600	-	69400
Iron	ug/L	Y	300	-	38.5J	-	54000	-	8540	-	18600	-	28500	-	81200	-	67700
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	134000	-	160000	-	191000	-	171000	-	173000	-	178000	-	175000	-
Sulfide	ug/L	N	NS	600U	-	600U	-	600U	-	5400U	-	680U	-	680U	-	680U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-362	MW-363	MW-363	MW-363	MW-363	MW-363	MW-363	MW-363	MW-363	MW-363	MW-363	MW-363	MW-363	MW-363
			Sample Date	09/21/2017	06/06/2013	06/06/2013	09/18/2013	09/19/2013	11/25/2013	11/26/2013	01/31/2014	04/03/2014	04/04/2014	06/30/2014	07/01/2014	04/01/2015	04/02/2015
			Field Sample ID	M362B6X	M363A1	M363A1X	M363A2	M363A2X	M363A3	M363A3X	M363A4X	M363A5	M363A5X	M363A6	M363A6X	M363A7	M363A7X
			SDG	CS607	RFZ87	RFZ87	CS012	CS012	CS048	CS048	CS059	CS081	CS081	CS120	CS120	CS215	CS215
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	12.3	13.69	13.69	12.79	14.98	12.97	14.83	14.17	12.59	15.85	14.08	16.17	15.49	17.83
DO	mg/L	N	NS	1	1.05	1.05	1.36	1.51	2.99	3.85	1.98	3.92	1.34	1.03	3.57	7.03	5.18
ORP	millivolts	N	NS	-1	29	29	-329	-24	-93	-143	35	-165	87	41	139	34	166
pH	pH Units	N	NS	6.76	5.67	5.67	5.57	5.10	4.92	4.76	4.78	4.41	3.80	5.54	4.73	5.07	4.56
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	1700U	-	700U	-	700U	-	700U	700U	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	1700U	-	4700	-	8600	-	8000	700U	-	700U	-	700U	-	700U
Arsenic	ug/L	N	3	-	0.83J	-	0.63J	-	0.78U	-	-	0.95J	-	0.82U	-	0.82U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	149000	-	156000	-	162000	-	-	28600	-	182000	-	106000	-
Iron	ug/L	Y	300	-	144000	-	153000	-	150000	-	-	20900	-	178000	-	98000	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	52J	40U	-	40U	-	40U	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	237000	-	414000	-	393000	-	365000	330000	-	256000	-	427000	-	336000
Sulfide	ug/L	N	NS	700U	-	600U	-	620J	-	880J	600U	-	600U	-	600U	-	680U

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-363	MW-363	MW-363	MW-363	MW-363	MW-363	MW-363	MW-363	MW-364	MW-364	MW-364	MW-364	MW-364	MW-364
			Sample Date	06/15/2015	06/16/2015	08/19/2015	08/20/2015	11/03/2015	11/04/2015	09/20/2017	09/21/2017	06/18/2013	06/19/2013	09/18/2013	09/19/2013	11/25/2013	11/26/2013
			Field Sample ID	M363A8	M363A8X	M363A9	M363A9X	M363B1	M363B1X	M363B5	M363B5X	M364A1	M364A1X	M364A2	M364A2X	M364A3	M364A3X
			SDG	CS252	CS252	CS274	CS274	CS308	CS308	CS607	CS607	RFB10	RFB10	CS012	CS012	CS048	CS048
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	16.21	-	15.91	-	15.59	-	15.12	3.72	3.76	4.01	4.51	5.82	5.72
DO	mg/L	N	NS	-	5.58	-	4.88	-	2.02	-	5.63	1.43	2.41	1.24	1.92	5.16	1.76
ORP	millivolts	N	NS	-	100	-	71	-	-11	-	-34	-50	-122	-408	-50	-157	-248
pH	pH Units	N	NS	-	4.78	-	6.93	-	5.32	-	6.76	6.20	5.90	5.97	5.80	5.95	5.66
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	1700U	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	700U	-	700U	-	700U	-	1700U	-	109000	-	121000	-	133000
Arsenic	ug/L	N	3	0.82U	-	0.54U	-	0.54U	-	0.72U	-	3.3	-	4.1	-	5.3	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	173000	-	160000	-	150000	-	243000	-	8280	-	4380	-	3830	-
Iron	ug/L	Y	300	162000	-	162000	-	158000	-	241000	-	4680	-	2580	-	2040	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	433000	-	477000	-	408000	-	727000	-	361000	-	447000	-	422000
Sulfide	ug/L	N	NS	-	680U	-	680U	-	680U	-	700U	-	600U	-	600U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-364	MW-364	MW-364	MW-364	MW-364	MW-364	MW-364	MW-364	MW-364	MW-364	MW-364	MW-364	MW-364	MW-365
			Sample Date	01/30/2014	04/07/2014	04/08/2014	06/30/2014	07/01/2014	04/08/2015	04/09/2015	06/24/2015	06/25/2015	09/02/2015	09/03/2015	09/20/2017	09/21/2017	06/26/2013
			Field Sample ID	M364A4	M364A5	M364A5X	M364A6	M364A6X	M364A7	M364A7X	M364A8	M364A8X	M364A9	M364A9X	M364B6	M364B6X	M365A1
			SDG	CS059	CS082	CS082	CS120	CS120	CS217	CS217	CS254	CS254	CS282	CS282	CS607	CS607	RFB22
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	4.52	7.13	7.66	4.48	4.64	4.52	-	-	-	4.62	-	7.92	6.21
DO	mg/L	N	NS	-	5.42	5.13	1.23	1.73	4.56	-0.27	-	-	-	4.33	-	1.33	0.54
ORP	millivolts	N	NS	-	-127	-163	281	124	193	303	-	-	-	1062	-	-46	-183
pH	pH Units	N	NS	-	6.41	5.97	6.04	5.75	5.88	5.87	-	-	-	7.55	-	6.66	6.13
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	700U	-	700U	-	700U	-	700U	-	1700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	78600	-	88100	-	84200	-	74800	-	70200	-	64000	-
Arsenic	ug/L	N	3	0.42U	0.92J	-	1.2J	-	0.82U	-	6.4	-	0.90J	-	1.5J	-	56.6
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	103000	1600	-	1150	-	749	-	7690	-	464	-	1070	-	54300
Iron	ug/L	Y	300	102000	94.5J	-	83.6J	-	183J	-	203	-	33.3U	-	108J	-	2980
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	110	-	40U	-	40U	-	40U	-	40U	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	392000	-	391000	-	382000	-	386000	-	181000	-	389000	-
Sulfide	ug/L	N	NS	-	-	600U	-	600U	-	680U	-	680U	-	680U	-	700U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-365	MW-367	MW-367	MW-367	MW-367	MW-367	MW-367	MW-367	MW-367	MW-367	MW-367	MW-368	MW-368	MW-368
			Sample Date	06/27/2013	06/14/2013	06/16/2013	10/21/2015	10/21/2015	10/21/2015	11/13/2017	11/14/2017	11/14/2017	02/19/2018	02/19/2018	06/06/2013	06/06/2013	06/06/2013
			Field Sample ID	M365A1X	M367A1X	M367A1	M367A2	M367A2X	M367A2X	M367A8	D1114175	M367A8X	M367A9	M367A9X	M368A1	M368A1X	M368A1X
			SDG	RFB22	CP001	CP001	CP896	1606862	CP896	CQ881	CQ886	CQ886	CQ984	CQ984	RFZ85	RFZ85	
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.05	8.45	-	18.73	18.73	18.73	-	12.66	12.66	-	-	8.54	8.54	8.54
DO	mg/L	N	NS	0.33	6.05	-	7.6	7.6	7.6	-	0.36	0.36	-	-	4.66	4.66	4.66
ORP	millivolts	N	NS	-275	148.7	-	110	110	110	-	205.6	205.6	-	-	57.9	57.9	57.9
pH	pH Units	N	NS	5.98	5.53	-	5.57	5.57	5.57	-	5.24	5.24	-	-	5.55	5.55	5.55
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	700U	-	-	-	-	-	-	-	-	-	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	109000	41200	-	-	-	4800	-	-	5800	-	10400	-	77400	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	0.72U	-	-	-	-
Arsenic	ug/L	Y	3	-	-	0.42U	0.54U	-	-	0.72U	-	-	-	-	0.97J	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	-	-	0.5U	-	0.5U	0.5U	-	0.5U	-	120	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	235	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	21.00n	-	-	-	-	-	-	-	-	4200
Nitrogen, Nitrate as N	ug/L	N	10000	40U	690	-	-	-	-	-	-	1200	-	490	-	40U	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	250000U	250000U	-	-	-	143000	-	-	240000J	-	245000	-	59200	-
Sulfide	ug/L	N	NS	1200U	1100U	-	-	-	1000J	-	-	700U	-	1400U	-	54U	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368
			Sample Date	06/24/2014	06/24/2014	06/24/2014	10/30/2014	10/30/2014	10/30/2014	10/30/2014	01/16/2015	01/16/2015	01/16/2015	01/16/2015	04/23/2015	04/23/2015	04/23/2015
			Field Sample ID	M368A2	M368A2X	M368A2X	M368A4	M368A4X	M368A4X	M368A4X	M368A6	M368A6X	M368A6X	M368A6X	M368A7	M368A7X	M368A7X
			SDG	CP383	CP383		CP574	1518415	CP574		CP645	1535464	CP645		CP692	1559415	CP692
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.8	9.8	9.8	8.84	8.84	8.84	8.84	9.39	9.39	9.39	9.39	11.85	11.85	11.85
DO	mg/L	N	NS	2.99	2.99	2.99	4.48	4.48	4.48	4.48	11.46	11.46	11.46	11.46	6.62	6.62	6.62
ORP	millivolts	N	NS	-103.7	-103.7	-103.7	-124.1	-124.1	-124.1	-124.1	-59.2	-59.2	-59.2	-59.2	18.5	18.5	18.5
pH	pH Units	N	NS	6.09	6.09	6.09	6.70	6.70	6.70	6.70	6.61	6.61	6.61	6.61	6.90	6.90	6.90
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	488000	-	-	-	675000	-	-	-	1140000	-	-	-	489000
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	24.5	-	-	30.5	-	-	-	26.4	-	-	-	19.2	-	-
Benzene	ug/L	N	1	-	9	-	-	-	12	-	-	-	13	-	-	-	13
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	15000	-	17000.00	-	17000	-	13000.00	-	13000	-	16000.00n	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	1500U	-	-	-	1500U	-	-	-	1500U	-	-	-	5000
Sulfide	ug/L	N	NS	-	2400	-	-	-	10600J	-	-	-	600U	-	-	-	680U

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-368	MW-369
			Sample Date	04/23/2015	07/09/2015	07/09/2015	07/09/2015	07/09/2015	10/12/2015	10/12/2015	10/12/2015	11/15/2017	11/15/2017	02/20/2018	02/20/2018	06/06/2013
			Field Sample ID	M368A7X	D07091515	M368A8	M368A8X	M368A8X	M368A9	M368A9X	M368A9X	M368B7	M368B7X	M368B8	M368B8X	M369A1
			SDG		CP775	CP775	1579561	CP775	CP875	1600816	CP875	CQ888	CQ888	CQ987	CQ987	RFZ85
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	11.85	17.52	17.52	17.52	17.52	9.5	9.5	9.5	10.36	10.36	-	-	7.14
DO	mg/L	N	NS	6.62	3.52	3.52	3.52	3.52	5.25	5.25	5.25	3.16	3.16	-	-	5.46
ORP	millivolts	N	NS	18.5	-91.3	-91.3	-91.3	-91.3	-147.5	-147.5	-147.5	-81.9	-81.9	-	-	10.9
pH	pH Units	N	NS	6.90	6.77	6.77	6.77	6.77	6.50	6.50	6.50	6.47	6.47	-	-	5.89
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	668000	-	-	381000	-	263000	-	281000	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	14.4	14.8J	-	-	24.6	-	-	30.2	-	22.5	-	1.6J
Benzene	ug/L	N	1	-	10	-	-	11	-	-	9	-	9	-	6	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	75000	-	-	-	-	-	-	-
Methane	ug/L	N	NS	16000	-	-	16000.00n	-	-	11000.00n	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	40U	-	130	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	6900	-	-	14200	-	32300J	-	37300	-
Sulfide	ug/L	N	NS	-	-	-	-	3000	-	-	680U	-	700U	-	2800U	-

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369
			Sample Date	06/06/2013	06/06/2013	10/28/2014	10/28/2014	10/28/2014	10/28/2014	10/28/2014	01/13/2015	01/13/2015	01/13/2015	01/13/2015	04/21/2015	04/21/2015	04/21/2015
			Field Sample ID	M369A1X	M369A1X	D1028145	M369A2	M369A2X	M369A2X	M369A2X	M369A4	M369A4X	M369A4X	M369A4X	M369A5	M369A5X	M369A5X
			SDG	RFZ85		CP568	CP568	1518011	CP568		CP635	1533695	CP635		CP688	1559414	CP688
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.14	7.14	7.3	7.3	7.3	7.3	7.3	7.45	7.45	7.45	7.45	7.73	7.73	7.73
DO	mg/L	N	NS	5.46	5.46	3.72	3.72	3.72	3.72	3.72	2.92	2.92	2.92	2.92	5.43	5.43	5.43
ORP	millivolts	N	NS	10.9	10.9	-44	-44	-44	-44	-44	-1.2	-1.2	-1.2	-1.2	-54.6	-54.6	-54.6
pH	pH Units	N	NS	5.89	5.89	6.38	6.38	6.38	6.38	6.38	6.38	6.38	6.38	6.38	6.64	6.64	6.64
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	131000	-	-	-	-	220000	-	-	-	210000	-	-	-	212000
Arsenic	ug/L	N	3	-	-	3.9	4.0	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	4.0	-	-	-	2.2	-	-
Benzene	ug/L	N	1	17	-	5	-	-	5	-	-	-	5	-	-	-	3
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	2800	-	-	5900.00	-	5900	-	6600.00	-	6600	-	6400.00n	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	56700	-	-	-	-	30900	-	-	-	32500	-	-	-	30900
Sulfide	ug/L	N	NS	54U	-	-	-	-	600U	-	-	-	600U	-	-	-	680U

Notes:
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Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-369	MW-370	MW-370
			Sample Date	04/21/2015	07/10/2015	07/10/2015	07/10/2015	10/09/2015	10/09/2015	10/09/2015	10/09/2015	11/15/2017	11/15/2017	02/21/2018	02/21/2018	06/05/2013	06/05/2013
			Field Sample ID	M369A5X	M369A6	M369A6X	M369A6X	D1009155	M369A7	M369A7X	M369A7X	M369RB5	M369RB5X	M369RB6	M369RB6X	M370A1	M370A1X
			SDG		CP776	1579559	CP776	CP871	CP871	1600812	CP871	CQ888	CQ888	CQ988	CQ988	RFZ80	RFZ80
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.73	7.85	7.85	7.85	8.31	8.31	8.31	8.31	-	-	-	-	18.51	18.51
DO	mg/L	N	NS	5.43	3.62	3.62	3.62	4.45	4.45	4.45	4.45	-	-	-	-	1.68	1.68
ORP	millivolts	N	NS	-54.6	0	0	0	-32.2	-32.2	-32.2	-32.2	-	-	-	-	-18.8	-18.8
pH	pH Units	N	NS	6.64	6.57	6.57	6.57	6.11	6.11	6.11	6.11	-	-	-	-	6.23	6.23
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	171000	-	-	-	185000	-	143000	-	171000	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	3.2	-	-	4.8J	4.9J	-	-	7.3	-	3	-	0.42U	-
Benzene	ug/L	N	1	-	-	-	4	3	-	-	3	-	7	-	4	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	6400	-	5500.00n	-	-	-	4400.00n	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	40U	-	170	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	41100	-	-	-	41100	-	39500J	-	30500	-	-
Sulfide	ug/L	N	NS	-	-	-	680U	-	-	-	680U	-	700U	-	700U	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-370	MW-370	MW-370	MW-370	MW-370	MW-370	MW-370	MW-370	MW-370	MW-371	MW-371	MW-371	MW-371	MW-371
			Sample Date	01/19/2015	01/19/2015	01/19/2015	04/24/2015	07/08/2015	07/08/2015	10/09/2015	10/09/2015	11/08/2017	07/10/2013	07/10/2013	07/10/2013	01/14/2015	01/14/2015
			Field Sample ID	M370A2X	M370A2X	M370A2X	M370A3X	M370A4X	M370A4X	M370A5X	M370A5X	M370B2X	D0710135	M371A1	M371A1X	M371A2X	M371A2X
			SDG	1535463	CP646		CP693	1579854	CP772	1600812	CP871	CQ873	CP041	CP041	CP041	1533694	CP637
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	16.92	16.92	16.92	17.22	22.5	22.5	27.41	27.41	17	23.7	23.7	23.7	24.85	24.85
DO	mg/L	N	NS	0.56	0.56	0.56	11.49	7.58	7.58	5.01	5.01	5.62	1.42	1.42	1.42	3.57	3.57
ORP	millivolts	N	NS	-23.2	-23.2	-23.2	9.3	55.6	55.6	187.2	187.2	14.5	43.4	43.4	43.4	-68	-68
pH	pH Units	N	NS	6.43	6.43	6.43	7.90	7.04	7.04	6.28	6.28	6.23	11.83	11.83	11.83	11.20	11.20
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	97300	-	98000J-	-	94200	-	99100	84000	-	-	-	-	126000
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	4.2	3.3	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	-	0.5U	-	3
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	89700	148J	148J	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	1.50	-	1.5	-	0.66n	-	0.31Jn	-	-	-	-	-	2500.00	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	40U	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-371	MW-371	MW-371	MW-371	MW-371	MW-371	MW-371	MW-371	MW-371	MW-372	MW-372	MW-372	MW-372	MW-372
			Sample Date	01/14/2015	04/27/2015	04/27/2015	07/07/2015	07/07/2015	10/12/2015	10/12/2015	11/09/2017	11/10/2017	06/14/2013	06/14/2013	06/14/2013	06/14/2013	09/24/2013
			Field Sample ID	M371A2X	M371A3X	M371A3X	M371A4X	M371A4X	M371A5X	M371A5X	M371B2	M371B2X	D0614135	M372A1	M372A1X	M372A1X	M372A2
			SDG		1591054	CP694	1579557	CP771	1600816	CP875	CQ876	CQ878	CP001	CP001	CP001		CP115
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	24.85	26.07	26.07	36.2	36.2	31.98	31.98	-	26.18	17.1	17.1	17.1	17.1	15.2
DO	mg/L	N	NS	3.57	5.2	5.2	6.82	6.82	4.11	4.11	-	3.96	1.71	1.71	1.71	1.71	7.16
ORP	millivolts	N	NS	-68	34.7	34.7	-125.4	-125.4	39.3	39.3	-	-206	75.4	75.4	75.4	75.4	58.5
pH	pH Units	N	NS	11.20	7.66	7.66	8.87	8.87	8.52	8.52	-	9.38	6.42	6.42	6.42	6.42	6.42
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	700U	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	94600	-	95100	-	103000	-	93900	-	-	228000	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	2.8	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	1J	-	7.3	7.4	-	-	-
Benzene	ug/L	N	1	-	-	1	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.7J
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	688	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	80.5U	-	-	-	-	-	-
Methane	ug/L	N	NS	2500	1300.00n	-	2600.00n	-	3000.00n	-	-	-	-	-	-	1300	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	40U	-	-	40U	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	35500	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	54U	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-372	MW-372	MW-372R	MW-372R	MW-372R	MW-372R	MW-372R	MW-372R	MW-372R	MW-372R	MW-372R	MW-372R	MW-372R	MW-372R
			Sample Date	11/09/2017	11/09/2017	10/30/2014	10/30/2014	10/30/2014	10/30/2014	01/15/2015	01/15/2015	01/15/2015	01/15/2015	04/24/2015	04/24/2015	07/07/2015	07/07/2015
			Field Sample ID	M372RB3	M372RB3X	M372RA1	M372RA1X	M372RA1X	M372RA1X	D0115155	M372RA3	M372RA3X	M372RA3X	M372RA4	M372RA4X	M372RA5	M372RA5X
			SDG	CQ876	CQ876	CP574	1518415	CP574		CP642	CP642	CP642		CP693	CP693	CP771	1579557
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	13.51	13.51	13.51	13.51	14.73	14.73	14.73	14.73	14.7	14.7	16.56	16.56
DO	mg/L	N	NS	-	-	8.6	8.6	8.6	8.6	2.75	2.75	2.75	2.75	8.06	8.06	6.32	6.32
ORP	millivolts	N	NS	-	-	-54.9	-54.9	-54.9	-54.9	-63.5	-63.5	-63.5	-63.5	13.6	13.6	-74.9	-74.9
pH	pH Units	N	NS	-	-	6.82	6.82	6.82	6.82	6.90	6.90	6.90	6.90	8.00	8.00	7.05	7.05
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	37300	-	-	544000	-	-	-	425000	-	-	370000	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	8	-	9.0	-	-	-	5.9	6.6	-	-	5.5	-	4.8	-
Benzene	ug/L	N	1	-	0.5U	-	-	0.5J	-	0.5U	-	0.5U	-	-	0.5U	-	-
Iron	ug/L	N	300	-	8890	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	6260	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	4600.00	-	4600	-	-	-	5500	-	-	-	1600.00n
Nitrogen, Nitrate as N	ug/L	N	10000	-	140	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	13600	-	-	25700	-	-	-	31600	-	-	39400	-	-
Sulfide	ug/L	N	NS	-	700U	-	-	2400U	-	-	-	600U	-	-	680U	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-372R	MW-372R	MW-372R	MW-372R	MW-390	MW-390	MW-390	MW-390	MW-390	MW-390	MW-390	MW-390	MW-390	MW-390
			Sample Date	07/07/2015	10/12/2015	10/12/2015	10/12/2015	01/08/2014	01/09/2014	04/16/2014	04/17/2014	07/14/2014	07/15/2014	02/11/2015	02/12/2015	05/14/2015	05/15/2015
			Field Sample ID	M372RA5X	M372RA6	M372RA6X	M372RA6X	M390A1	M390A1X	M390A2	M390A2X	M390A3	M390A3X	M390A4	M390A4X	M390A5	M390A5X
			SDG	CP771	CP875	1600816	CP875	CS050	CS050	CS087	CS087	CS125	CS125	CS200	CS200	CS232	CS232
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	16.56	16.05	16.05	16.05	14.12	14.23	13.63	13.94	14.13	12.96	13.97	13.91	-	14.61
DO	mg/L	N	NS	6.32	4.15	4.15	4.15	6.12	136	5.18	4.88	1.8	0.69	2.71	1.87	-	1.5
ORP	millivolts	N	NS	-74.9	-45.4	-45.4	-45.4	-164	-237	-120	-180	237	214	167	-231	-	263
pH	pH Units	N	NS	7.05	6.64	6.64	6.64	5.35	11.77	5.98	5.31	5.76	4.77	6.14	5.22	-	4.83
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	700U	-	700U	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	361000	-	-	438000	-	2600	-	5900	-	3600	-	2500	-	5100
Arsenic	ug/L	N	3	-	-	-	-	0.85J	-	0.78U	-	0.82U	-	0.82U	-	0.82U	-
Arsenic	ug/L	Y	3	-	6.9	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	-	1450	-	1200	-	238	-	203	-	402J	-
Iron	ug/L	Y	300	-	13800	-	-	326	-	140J	-	73.9J	-	127J	-	72.7U	-
Methane	ug/L	N	NS	-	-	930.00n	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	1400	-	1100	-	1000	-	900	-	950
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	43000	-	-	32300	-	53100	-	63000	-	69200	-	57300	-	37500
Sulfide	ug/L	N	NS	680U	-	-	680U	-	2400U	-	600U	-	600U	-	680U	-	680U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-390	MW-390	MW-390	MW-390	MW-390	MW-390	MW-390	MW-390	MW-416	MW-416	MW-416	MW-416	MW-416	MW-416
			Sample Date	08/27/2015	08/27/2015	08/27/2015	08/27/2015	10/27/2015	10/28/2015	09/21/2017	09/22/2017	05/18/2015	05/19/2015	08/19/2015	08/20/2015	10/27/2015	10/28/2015
			Field Sample ID	D0826151	D0827151	M390A6	M390A6X	M390A7	M390A7X	M390B2	M390B2X	M416A1	M416A1X	M416A2	M416A2X	M416A3	M416A3X
			SDG	CS279	CS279	CS279	CS279	CS304	CS304	CS608	CS608	CS238	CS238	CS274	CS274	CS304	CS304
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	14.94	14.94	14.94	14.94	-	-	-	14.29	-	12.41	-	14.11	-	13.97
DO	mg/L	N	NS	6.17	6.17	6.17	6.17	-	-	-	0.83	-	3.41	-	3.91	-	2.61
ORP	millivolts	N	NS	236	236	236	236	-	-	-	-47	-	177	-	25	-	-43
pH	pH Units	N	NS	6.23	6.23	6.23	6.23	-	-	-	6.70	-	3.48	-	6.83	-	5.28
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	1700U	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	4000	-	4000	-	3100	-	7600	-	700U	-	4300	-	700U
Arsenic	ug/L	N	3	0.54U	-	0.54U	-	0.54U	-	0.72U	-	2.0	-	1.5J	-	0.72J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	184J	-	175J	-	176J	-	144J	-	234000	-	196000	-	213000	-
Iron	ug/L	Y	300	66.9J	-	73.6J	-	57.3J	-	128J	-	220000	-	211000	-	215000	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	980	-	1700	-	40U	-	40U	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	53100J	-	50000U	-	53400	-	53200	-	273000	-	252000	-	242000
Sulfide	ug/L	N	NS	-	5400U	-	2700U	-	680U	-	700U	-	11300	-	1700J	-	680U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-416	MW-416	MW-416	MW-416	MW-417	MW-417	MW-417	MW-417	MW-417	MW-417	MW-417	MW-417	MW-417	MW-417
			Sample Date	09/21/2017	09/22/2017	12/04/2017	12/05/2017	05/18/2015	05/19/2015	08/19/2015	08/20/2015	10/27/2015	10/28/2015	09/21/2017	09/22/2017	12/04/2017	12/05/2017
			Field Sample ID	M416B3	M416B3X	M416B4	M416B4X	M417A1	M417A1X	M417A2	M417A2X	M417A3	M417A3X	M417B3	M417B3X	M417B4	M417B4X
			SDG	CS608	CS608	CS623	CS623	CS238	CS238	CS274	CS274	CS304	CS304	CS608	CS608	CS623	CS623
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	12.44	-	-	-	14.18	-	14.17	-	13.99	-	12.19	-	12.63
DO	mg/L	N	NS	-	3.5	-	-	-	1.48	-	3.75	-	6.19	-	2.73	-	3.04
ORP	millivolts	N	NS	-	286	-	-	-	117	-	-15	-	65	-	9	-	381
pH	pH Units	N	NS	-	3.22	-	-	-	4.28	-	6.48	-	4.50	-	5.96	-	2.99
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	1700U	-	1700U	-	700U	-	700U	-	700U	-	1700U	-	1700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	1700U	-	1700U	-	700U	-	700U	-	700U	-	1700U	-	1700U
Arsenic	ug/L	N	3	0.72U	-	0.72U	-	3.2	-	1.5J	-	0.89J	-	1.1J	-	2.2	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	162000	-	122000	-	884000	-	1070000	-	1090000	-	979000	-	999000	-
Iron	ug/L	Y	300	140000	-	114000	-	882000	-	1060000	-	1080000	-	1070000	-	1010000	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	400U	-	40U	-	40U	-	410
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	174000	-	211000	-	219000	-	288000	-	275000	-	235000	-	259000
Sulfide	ug/L	N	NS	-	700U	-	2700	-	3800	-	8100	-	2400	-	700U	-	1400U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-418	MW-418	MW-418	MW-418	MW-418	MW-418	MW-434	MW-434	MW-434R	MW-434R	MW-434R	MW-434R	MW-434R	MW-434R
			Sample Date	05/18/2015	05/19/2015	08/17/2015	08/18/2015	10/27/2015	10/28/2015	10/06/2015	10/06/2015	04/28/2017	05/01/2017	05/17/2017	08/21/2017	08/21/2017	10/31/2017
			Field Sample ID	M418A1	M418A1X	M418A2	M418A2X	M418A3	M418A3X	M434A1	M434A1X	M434RA3X	M434RA3	M434RA4X	M434RA5	M434RA5X	M434RA6
			SDG	CS238	CS238	CS273	CS273	CS304	CS304	CP863	CP863	CQ612	CQ615	CQ641	CQ742	CQ742	CQ855
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	10.71	-	10.11	-	10.56	7.2	7.2	3.46	-	-	6.01	6.01	5.89
DO	mg/L	N	NS	-	1.06	-	2.52	-	11.07	0.99	0.99	6.05	-	-	1.21	1.21	2.05
ORP	millivolts	N	NS	-	81	-	-35	-	-22	47.1	47.1	654	-	-	279.6	279.6	613.3
pH	pH Units	N	NS	-	4.51	-	6.67	-	5.56	6.00	6.00	2.89	-	-	3.43	3.43	2.8
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	700U	-	1600J	-	700U	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	0.97J	-	2.4	-	1.0J	-	5.7	-	-	48.5	-	8.3	-	2.3
Arsenic	ug/L	Y	3	-	-	-	-	-	-	7.5	-	-	50.8	-	3.6	-	2.6
Benzene	ug/L	N	1	-	2	-	1	-	2	-	23	-	-	8	-	3	-
Iron	ug/L	N	300	105000	-	77300	-	68400	-	67700	-	-	220000	-	78800	-	41900
Iron	ug/L	Y	300	104000	-	113000	-	65900	-	62800	-	-	220000	-	78600	-	42500
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	249000	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	230000	-	230000	-	232000	-	-	6300000	-	-	-	1500000	-
Sulfide	ug/L	N	NS	-	680U	-	680U	-	680U	-	680U	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-434R	MW-434R	MW-434R	MW-434R	MW-434R	MW-435	MW-435	MW-435	MW-435R	MW-435R	MW-435R	MW-435R	MW-435R
			Sample Date	10/31/2017	02/05/2018	02/05/2018	05/02/2018	05/02/2018	10/06/2015	10/06/2015	10/06/2015	05/01/2017	05/01/2017	08/23/2017	08/23/2017	10/31/2017
			Field Sample ID	M434RA6X	M434RA7	M434RA7X	M434RA8	M434RA8X	D1006158A	M435A1	M435A1X	M435RA3	M435RA3X	M435RA4	M435RA4X	M435RA5
			SDG	CQ855	CQ964	CQ964	CR046	CR046	CP863	CP863	CP863	CQ615	CQ615	CQ744	CQ744	CQ855
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.89	-	-	-	-	10.51	10.51	10.51	2.8	2.8	1.93	1.93	2.22
DO	mg/L	N	NS	2.05	-	-	-	-	0.55	0.55	0.55	2.77	2.77	2.48	2.48	1.97
ORP	millivolts	N	NS	613.3	-	-	-	-	213.4	213.4	213.4	360.2	360.2	228.7	228.7	192.3
pH	pH Units	N	NS	2.8	-	-	-	-	4.01	4.01	4.01	6.55	6.55	5.42	5.42	7.06
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.8	-	10.2	-	14.6	14.9	-	3.4	-	1.2J	-	0.72U
Arsenic	ug/L	Y	3	-	9.5	-	10.2	-	11	13	-	3.1	-	1.1J	-	0.72U
Benzene	ug/L	N	1	2	-	3	-	8	82	-	74	-	0.8J	-	1	-
Iron	ug/L	N	300	-	31400	-	76700	-	41800	38600	-	74.7U	-	118J	-	80.5U
Iron	ug/L	Y	300	-	30500	-	76100	-	64700	56600	-	74.7U	-	80.5U	-	80.5U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	146000	-	135000J	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1050000	-	1610000	-	2210000	-	-	-	-	1930000	-	999000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	680U	-	680UJ	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-435R	MW-435R	MW-435R	MW-435R	MW-435R	MW-436	MW-436	MW-438	MW-438	MW-438	MW-438	MW-438	MW-438	MW-439
			Sample Date	10/31/2017	02/06/2018	02/06/2018	02/06/2018	05/02/2018	10/08/2015	10/08/2015	10/06/2015	10/06/2015	10/30/2017	10/30/2017	02/05/2018	02/05/2018	10/07/2015
			Field Sample ID	M435RA5X	D0206188	M435RA6	M435RA6X	M435RA7X	M436A1	M436A1X	M438A1	M438A1X	M438A5	M438A5X	M438A6	M438A6X	M439A1
			SDG	CQ855	CQ965	CQ965	CQ965	CR046	CP867	CP867	CP863	CP863	CQ854	CQ854	CQ964	CQ964	CP866
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.22	-	-	-	-	-	-	6.22	6.22	4.12	4.12	-	-	-
DO	mg/L	N	NS	1.97	-	-	-	-	-	-	0.59	0.59	4.11	4.11	-	-	-
ORP	millivolts	N	NS	192.3	-	-	-	-	-	-	-40	-40	-90.5	-90.5	-	-	-
pH	pH Units	N	NS	7.06	-	-	-	-	-	-	6.05	6.05	6.86	6.86	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	0.77J	0.72U	-	-	46.1	-	40.6	-	3.8	-	3.8	-	9.2
Arsenic	ug/L	Y	3	-	1.3UJ	0.84J	-	-	47.3	-	35.3	-	2.5	-	2.8	-	3.4
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	140	-	5	-	4	-	2	-
Iron	ug/L	N	300	-	707	763J	-	-	88300	-	55300	-	3630	-	6340	-	16500
Iron	ug/L	Y	300	-	308	80.5U	-	-	84200	-	54000	-	3320	-	6250	-	94.8J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	280000	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	865000	557000	-	547000	548000	-	213000	-	-	-	96700	-	263000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	680U	-	680U	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-439	MW-439	MW-439	MW-439	MW-439	MW-440	MW-440	MW-440	MW-440	MW-440	MW-440	MW-440	MW-440
			Sample Date	10/07/2015	11/01/2017	11/01/2017	02/05/2018	02/06/2018	10/07/2015	10/07/2015	11/02/2017	11/02/2017	11/02/2017	02/06/2018	02/06/2018	05/01/2018
			Field Sample ID	M439A1X	M439B2	M439B2X	M439B3	M439B3X	M440A1	M440A1X	D1102178B	M440A5	M440A5X	M440A6	M440A6X	M440A7
			SDG	CP866	CS621	CS621	CS641	CS641	CP866	CP866	CQ864	CQ864	CQ864	CQ965	CQ965	CR044
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	4.15	4.15	4.15	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	5.55	5.55	5.55	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	24.1	24.1	24.1	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	5.98	5.98	5.98	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	12.1	-	5.6	-	3.8	-	7.3J	6.9J-	-	1.3J	-	79.8
Arsenic	ug/L	Y	3	-	9.1	-	5.7	-	3.3	-	2.2	2.1	-	0.72U	-	0.72U
Benzene	ug/L	N	1	0.5U	-	0.7J	-	5	-	2	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	1300	-	265	-	64500	-	55800	56100	-	2200	-	353000
Iron	ug/L	Y	300	-	80.5U	-	80.5U	-	64900	-	20200	25000	-	80.5U	-	309
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	104000	-	375000	-	111000	-	292000	163000	-	158000	-	62900	-
Sulfide	ug/L	N	NS	27000U	-	-	-	-	-	680U	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-440	MW-441	MW-441	MW-441R	MW-441R	MW-441R	MW-441R	MW-441R	MW-441R	MW-441R	MW-441R	MW-441R	MW-441R	MW-441R
			Sample Date	05/01/2018	10/07/2015	10/07/2015	05/02/2017	06/09/2017	08/22/2017	08/22/2017	10/30/2017	10/30/2017	02/07/2018	02/07/2018	05/03/2018	05/03/2018	05/03/2018
			Field Sample ID	M440A7X	M441A1	M441A1X	M441RA3	M441RA3X	M441RA4	M441RA4X	M441RA5	M441RA5X	M441RA6	M441RA6X	D0503188	M441RA7	M441RA7X
			SDG	CR044	CP866	CP866	CQ617	CQ617	CQ743	CQ743	CQ854	CQ854	CQ968	CQ968	CR049	CR049	CR049
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	4	-	2.74	2.74	2.3	2.3	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	3.66	-	1.49	1.49	3.13	3.13	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	548.9	-	-16.5	-16.5	-7.8	-7.8	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	3.22	-	6.1	6.1	5.89	5.89	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	6.5	-	22.8	-	10.2	-	3.6	-	8.7	-	4.2	4.5	-
Arsenic	ug/L	Y	3	-	6.3	-	17.7	-	8.8	-	3	-	6	-	3	2.8	-
Benzene	ug/L	N	1	0.5U	-	20	-	15	-	28	-	25	-	14	11	-	11
Iron	ug/L	N	300	-	28200	-	13500	-	140000	-	17200	-	128000	-	73000	77600	-
Iron	ug/L	Y	300	-	28400	-	969	-	138000	-	28200	-	130000	-	55400	60200	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	25100	-	84700	-	7430000	-	5620000	-	3550000	-	4100000	2570000	-	2620000J+
Sulfide	ug/L	N	NS	-	-	680U	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-509	MW-509	MW-509	MW-509	MW-509	MW-509	MW-517	MW-517	MW-517	MW-517	MW-517	MW-517	MW-517	MW-518
			Sample Date	11/01/2017	11/02/2017	02/07/2018	02/07/2018	05/01/2018	05/01/2018	08/15/2017	08/15/2017	11/13/2017	11/14/2017	02/14/2018	02/14/2018	05/10/2018	08/16/2017
			Field Sample ID	M509A5	M509A5X	M509A6	M509A6X	M509A7	M509A7X	M517A1	M517A1X	M517A2	M517A2X	M517A3	M517A3X	M517A4	M518A1
			SDG	CQ859	CQ864	CQ968	CQ968	CR044	CR044	CQ736	CQ736	CQ881	CQ886	CQ975	CQ975	CR058	CQ738
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	5.94	-	-	-	-	7.15	7.15	-	9.66	-	-	-	5.3
DO	mg/L	N	NS	-	0.78	-	-	-	-	4.34	4.34	-	2.79	-	-	-	6.01
ORP	millivolts	N	NS	-	60.2	-	-	-	-	165.8	165.8	-	16.4	-	-	-	5.1
pH	pH Units	N	NS	-	5.67	-	-	-	-	5.13	5.13	-	5.84	-	-	-	6.27
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	1700U	-	39000	-	36200	-	-
Arsenic	ug/L	N	3	0.94J	-	1.6J	-	1.7J	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	1.3J	-	1.4J	-	1.6J	-	1.6UJ	-	1.5J	-	0.72U	-	0.72U	7.1
Benzene	ug/L	N	1	-	28	-	7	-	17	-	1U	-	0.5U	-	0.5U	-	-
Iron	ug/L	N	300	51400	-	56900	-	40400	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	47900	-	54700	-	41200	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	40U	-	230	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	199000	-	197000	-	215000	-	324000J+	-	447000	-	389000	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	700U	-	700U	-	1400U	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-518	MW-518	MW-518	MW-518	MW-518	MW-519	MW-519	MW-519	MW-519	MW-519	MW-519	PZ-0016	PZ-0016	PZ-0016
			Sample Date	08/16/2017	11/15/2017	11/15/2017	02/16/2018	02/16/2018	08/15/2017	08/16/2017	11/15/2017	11/16/2017	02/20/2018	02/21/2018	03/28/2002	02/26/2004	02/26/2004
			Field Sample ID	M518A1X	M518A2	M518A2X	M518A3	M518A3X	M519A1	M519A1X	M519A2	M519A2X	M519A3	M519A3X	PZ16A1	P216A2	PZ16A2A
			SDG	CQ738	CQ888	CQ888	CQ980	CQ980	CQ736	CQ738	CQ888	CQ891	CQ987	CQ988	HPA07	RFE97	RFE97
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.3	6.15	6.15	-	-	-	19.98	-	20.27	-	-	-	-	-
DO	mg/L	N	NS	6.01	3.15	3.15	-	-	-	3.58	-	3.38	-	-	-	-	-
ORP	millivolts	N	NS	5.1	-22.8	-22.8	-	-	-	-100.4	-	-107.6	-	-	-	-	-
pH	pH Units	N	NS	6.27	6.51	6.51	-	-	-	12.74	-	12.29	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	37000	-	79300	-	35400	-	833000	-	1190000	-	1200000	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	4.9U	-
Arsenic	ug/L	Y	3	-	7.4	-	2.3	-	1.2UJ	-	2.5	-	1.4J	-	-	-	-
Benzene	ug/L	N	1	5	-	4	-	4	-	0.5U	-	0.9J	-	0.5U	-	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	50600	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	250	-	-	-	40U	-	360	400U	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	472000	-	328000J	-	242000	-	276000	-	5400J	-	3200J	-	-	-
Sulfide	ug/L	N	NS	700U	-	700U	-	700U	-	700U	-	700U	-	700U	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018
			Sample Date	09/10/2009	09/11/2009	10/21/2009	10/22/2009	08/11/2010	08/12/2010	10/20/2010	10/21/2010	09/15/2011	09/16/2011	12/06/2011	06/28/2012	06/29/2012
			Field Sample ID	TP2018A1	TP2018A1X	TP2018A2	TP2018A2X	TP2018A3	TP2018A3X	TP2018A4	TP2018A4X	TP2018A5	TP2018A5X	TP2018A6X	TP2018A7	TP2018X
			SDG	1161510	1161510	1167632	1167632	RFS63	RFS63	RFS74	RFS74	RFT69	RFT69	RFT90	RFU96	RFU96
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.12	-	4.51	-	7.31	6.09	5.07	7.39	4.7	4.99	-	13.71	479
DO	mg/L	N	NS	5.4	-	1.19	-	0	0	0	0	-	-	-	0.24	-
ORP	millivolts	N	NS	-82	-	-65	-	0	0	0	0	-	-	-	-118	-
pH	pH Units	N	NS	5.97	-	5.90	-	0.00	0.00	0.00	0.00	-	-	-	7.15	-
Alkalinity to pH 4.5	ug/L	N	NS	-	10000	-	51700	-	47000	-	84300	-	28600	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	-	700U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	8100
Arsenic	ug/L	N	3	28.8	-	25.1	-	22.2	-	22.2	-	28.8	-	-	31.5	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	1200	-	970	-	1100	-	900	-	1000	1100	-	1000
Iron	ug/L	N	300	161000	-	124000	-	141000	-	122000	-	131000	-	-	140000	-
Iron	ug/L	Y	300	163000	-	123000	-	138000	-	118000	-	130000	-	-	140000	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	-	40U
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2500U	-	2500U	-	2500U	-	10000U	-	2500U	-	-	2500U
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	530U	-	530U	-	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018	TP2-018
			Sample Date	09/10/2012	09/11/2012	08/13/2013	10/31/2013	11/01/2013	02/11/2014	02/11/2014	11/05/2014	11/06/2014	07/01/2015	07/02/2015	10/08/2015	10/08/2015
			Field Sample ID	TP2018A8	TP2018A8X	TP2018B1X	TP2018B2	TP2018B2X	TP2018B3	TP2018B3X	TP2018B4	TP2018B4X	TP2018B5	TP2018B5X	TP2018B6	TP2018B6X
			SDG	RFV40	RFV40	RFB88	CS037	CS037	CS062	CS062	CS182	CS182	CS257	CS257	CP867	CP867
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.5	5.8	-	13.51	6.72	5.18	5.18	13.81	5.23	-	4.75	-	-
DO	mg/L	N	NS	1.75	-	-	0.98	-	1.65	1.65	-0.51	-	-	-	-	-
ORP	millivolts	N	NS	-100	-	-	-152	-	-84	-84	-109	-	-	-	-	-
pH	pH Units	N	NS	6.27	-	-	6.16	-	6.28	6.28	6.32	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	700U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	14000	32300	-	31700	-	59400	-	35300	-	60000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	700U	-	700U	-	700U	-	700U	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	14000	32300	-	31700	-	59400	-	35300	-	60000	-	-
Arsenic	ug/L	N	3	21.0	-	-	25.6	-	19.6	-	24.2	-	27.5	-	26.9	-
Arsenic	ug/L	Y	3	20.0	-	-	24.2	-	17.0	-	23.3	-	26.4	-	26.2	-
Benzene	ug/L	N	1	-	910	1100	-	840	-	1000	-	800	-	1100	-	960
Iron	ug/L	N	300	150000	-	-	129000	-	166000	-	140000	-	130000	-	140000	-
Iron	ug/L	Y	300	151000	-	-	126000	-	159000	-	140000	-	127000	-	140000	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	40U	-	200U	-	200U	-	40U	-	40U	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2500U	2500U	-	5000J	-	10000U	-	7000J	-	2500U	-	1500U
Sulfide	ug/L	N	NS	-	600U	600U	-	600U	-	600U	-	600U	-	680U	-	680U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B1 Central Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	TP2-018R	TP2-018R	TP2-018R	TP2-018R	TP2-018R	TP2-018R	TP2-018R	TP2-018R	TP2-018R	TP2-018R	TP2-018R
			Sample Date	05/03/2017	05/03/2017	05/03/2017	08/23/2017	08/23/2017	10/31/2017	11/01/2017	02/06/2018	02/06/2018	05/02/2018	05/02/2018
			Field Sample ID	TP2018RB8	TP2018RB8X	TP2018RB8X	TP2018RB9	TP2018RB9X	TP2018RC1	TP2018RC1X	TP2018RC2	TP2018RC2X	TP2018RC3	TP2018RC3X
			SDG	CQ620	CQ620	CQ624	CQ744	CQ744	CQ855	CQ859	CQ965	CQ965	CR046	CR046
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.41	5.41	5.41	6.3	6.3	-	-	-	-	-	-
DO	mg/L	N	NS	4.96	4.96	4.96	1.89	1.89	-	-	-	-	-	-
ORP	millivolts	N	NS	441.6	441.6	441.6	50.8	50.8	-	-	-	-	-	-
pH	pH Units	N	NS	4.54	4.54	4.54	5.52	5.52	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	15	-	-	35.7	-	0.99UJ	-	8.6	-	5.6	-
Arsenic	ug/L	Y	3	15.9	-	-	36.1	-	1.1UJ	-	7.3	-	6.4J-	-
Benzene	ug/L	N	1	-	-	86	-	100	-	32	-	80	-	78J
Iron	ug/L	N	300	353000	-	-	448000	-	2600	-	1570000	-	967000	-
Iron	ug/L	Y	300	319000	-	-	447000	-	2110	-	1410000	-	973000	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	Y	10000	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	18700000	-	-	24100000	-	7190000	-	14100000	-	21600000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MP-01R	MP-01R	MP-01R	MP-01R	MP-02R	MP-02R	MP-02R	MP-02R	MP-03R	MP-03R	MP-03R	MP-03R	MP-04RR
			Sample Date	10/19/2017	10/19/2017	01/09/2018	01/09/2018	10/18/2017	10/18/2017	01/09/2018	01/09/2018	10/19/2017	10/19/2017	01/09/2018	01/09/2018	10/18/2017
			Field Sample ID	MP01RC2	MP01RC2X	MP01RC3	MP01RC3X	MP02RC2	MP02RC2X	MP02RC3	MP02RC3X	MP03RC2	MP03RC2	MP03RC3	MP03RC3X	MP04RRC3
			SDG	CQ829	CQ829	CQ935	CQ935	CQ825	CQ825	CQ935	CQ935	CQ819	CQ829	CQ935	CQ935	CQ825
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.54	0.54	0.01	0.01	0.31	0.31	0.56	0.56	-	-	7.57	7.57	1.31
DO	mg/L	N	NS	4.39	4.39	5.1	5.1	3.7	3.7	5.1	5.1	-	-	4.25	4.25	3.8
ORP	millivolts	N	NS	-114.8	-114.8	-126.6	-126.6	-119	-119	-54.6	-54.6	-	-	-98.1	-98.1	-51.8
pH	pH Units	N	NS	7.48	7.48	7.34	7.34	7.47	7.47	7.39	7.39	-	-	6.76	6.76	6.48
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	2.7	-	3	-	4.6	-	3.6	-	-	3.7	3.5	-	3.6
Arsenic	ug/L	Y	3	2.6	-	3.3	-	3.3	-	2.7	-	-	3.5	3.3	-	2.4
Benzene	ug/L	N	1	-	580	-	270	-	44J	-	8	15	-	-	2	-
Iron	ug/L	N	300	1400	-	4260	-	2380	-	4330	-	-	12200	12500	-	4800
Iron	ug/L	Y	300	877	-	4140	-	2380	-	3370	-	-	12100	15700	-	1730
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	510000	-	140000	-	1050000	-	595000	1120000J	-	-	1420000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MP-04RR	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043
			Sample Date	10/18/2017	11/12/1999	02/09/2000	11/16/2000	01/29/2002	08/02/2002	08/14/2002	10/01/2002	10/01/2002	01/22/2003	01/22/2003	11/11/2003	08/10/2004
			Field Sample ID	MP04RRC3X	M043A1	M043A2	M043A3	M043A5	M043A6	M043A6T	M043A7X	M043A7Y	M043A8X	M043A8Y	M043B1	MW043B2
			SDG	CQ825	94446	00473	B2465	269900	295754	297195	RFE24	RFE24	RFE58	RFE58	RFE92	RFF18
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.31	-	-	-	-	-	-	-	-	-	-	6.55	-
DO	mg/L	N	NS	3.8	-	-	-	-	-	-	3.41	3.41	4.63	4.63	2.3	-
ORP	millivolts	N	NS	-51.8	-	-	-	-	-	-	109	109	161	161	89	-
pH	pH Units	N	NS	6.48	-	-	-	-	-	-	-	-	-	-	6.95	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	327000	410U	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	410U	410U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	327000	410U	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	5.95	4.18U	9.9B*	5.0U	8.00	15.0	4.9U	-	-	5.3J	4.9U	4.7U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3J	1.0U	1.0U	2U	1.00U	2.0U	2.0U	-	0.5U	0.5U	-	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	206	-	-	319	667	1100
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	5910	40.0U	-	1300	500
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1790000	-	-	-	-	-	-	-	360000	15000U	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043
			Sample Date	03/15/2005	08/30/2005	03/09/2006	08/24/2006	03/15/2007	03/03/2008	03/04/2008	08/25/2008	08/26/2008	02/19/2009	02/20/2009	10/05/2009	10/06/2009
			Field Sample ID	M043B3X	M043B4X	M043B5X	M043B6X	M043B7X	M043B8	M043B8X	M043B9	M043B9X	M043C1	M043C1X	M043C2	M043C2X
			SDG	RFF43	957459	981013	1003078	1029582	1080011	1080011	1107202	1107202	1133129	1133129	1165120	1165120
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	7.2	-	7.16	-	7.16	-	7.28	-
DO	mg/L	N	NS	-	-	-	-	-	10.23	-	3.21	-	9.8	-	0.41	-
ORP	millivolts	N	NS	-	-	-	-	-	141	-	47	-	133	-	-58	-
pH	pH Units	N	NS	-	-	-	-	-	7.63	-	7.01	-	7.57	-	6.40	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	10.0U	-	10.2U	-	10.0U	-	10.1J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	878	-	671	-	945	-	7490	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	930	40U	600	600	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043
			Sample Date	03/23/2010	03/23/2010	08/26/2010	08/26/2010	08/27/2010	08/27/2010	03/24/2011	03/25/2011	09/19/2011	09/20/2011	04/30/2012	05/01/2012	08/27/2012
			Field Sample ID	M043C3	M043C3X	D0826101	M043C4	D0827101	M043C4X	M043C5	M043C5X	M043C6	M043C6X	M043C7	M043C7X	M043C8
			SDG	RFS35	RFS35	RFS65	RFS65	RFS65	RFS65	RFT02	RFT02	RFT70	RFT70	RFU50	RFU50	RFV32
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.67	5.67	7.31	7.31	7.37	7.37	10.95	2.17	5.26	1.18	3.6	6.84	1.18
DO	mg/L	N	NS	8.72	8.72	1.87	1.87	0.07	0.07	6.54	6.44	6.64	6.51	7.69	7.38	7.08
ORP	millivolts	N	NS	146	146	-75	-75	-80	-80	123	205	-3	-29	12	64	-68
pH	pH Units	N	NS	7.08	7.08	6.44	6.44	6.47	6.47	6.82	6.40	6.83	6.81	6.89	6.77	6.75
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	7.2U	-	13.9J	13.5J	-	-	9.8U	-	11.4J	-	5.2J	-	23.9
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	19.2
Benzene	ug/L	N	1	-	0.5U	-	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	1700	-	2390	3170	-	-	1150	-	830	-	451	-	7810
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	6770
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043	MW-0043
			Sample Date	08/28/2012	06/24/2013	06/25/2013	10/01/2013	10/02/2013	06/16/2014	06/17/2014	11/04/2014	11/05/2014	07/09/2015	07/10/2015	09/11/2017	09/12/2017
			Field Sample ID	M043C8X	M043C9	M043C9X	M043D1	M043D1X	M043D2	M043D2X	M043D3	M043D3X	M043D4	M043D4X	M043D8	M043D8X
			SDG	RFV32	RFB18	RFB18	CS020	CS020	CS113	CS113	CS181	CS181	CS259	CS259	CS601	CS601
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.12	2.16	0.22	-	-	1.4	1.13	-0.4	1.23	0.91	0.17	3.18	7
DO	mg/L	N	NS	8.69	7.14	6.9	-	-	7.79	7.35	7.78	7.64	8.03	7.8	6.68	6.65
ORP	millivolts	N	NS	-66	-117	-207	-	-	0.299	-206	-136	-113	-17	-72	-53	-37
pH	pH Units	N	NS	7.21	6.43	6.70	-	-	6.95	6.84	6.73	6.88	6.59	6.33	6.74	6.83
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	700U	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	325000	-	327000	-	537000	-	290000	-	617000	-	567000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	700U	-	700U	-	700U	-	700U	-	1700U
Alkalinity, Total as CaCO3	ug/L	N	NS	325000	-	327000	-	537000	-	290000	-	617000	-	567000	-	768000
Arsenic	ug/L	N	3	-	4.3	-	58.4	-	4.4	-	60.0	-	12.6	-	21.3	-
Arsenic	ug/L	Y	3	-	1.9J	-	60.2	-	3.0	-	55.5	-	9.9	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	775	-	28900	-	993	-	22900	-	1730	-	36000	-
Iron	ug/L	Y	300	-	93.7J	-	30300	-	380	-	22000	-	1470	-	36400	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	55J	-	40U	-	43J	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	28100	-	151000	-	10000U	-	120000	-	12500U	-	17800	-	10000U
Sulfide	ug/L	N	NS	600U	-	600U	-	600U	-	600U	-	600U	-	680U	-	700U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0043	MW-0043	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051
			Sample Date	02/21/2018	02/22/2018	11/25/2003	08/25/2004	04/11/2005	04/12/2005	09/13/2005	09/13/2005	03/22/2006	03/23/2006	09/20/2006	09/20/2006	03/29/2007
			Field Sample ID	M043D9	M043D9X	M051A2	M051A3	M051A4	M051A4X	M051A5	M051A5X	M051A6	M051A6X	M051A7	M051A7X	M051A8
			SDG	CS651	CS651	RFE93	RFF21	RFF48	RFF48	959069	959069	982888	982888	1006518	1006518	1031765
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	3.25	-	-	3.51	3.51	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	0.92	-	-	0.2	0.2	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	0.1	-	-	-122	-122	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	6.28	-	-	5.89	5.89	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	215000	-	276000	-	279000	-	182000	-	263000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	410U	-	410U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	1700U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	240000	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	1.1J	-	13.9	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	10	9	-	46	-	21	-	18	-	350	-
Iron	ug/L	N	300	714	-	65200	72100	73800	-	69400	-	69500J	-	107000J	-	44000
Iron	ug/L	Y	300	1780	-	-	74000	71800	-	79500	-	67900J	-	77100J	-	61300
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	110	400U	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	65400	-	19800J	-	3000U	-	15000U	-	21800	-	7500U	-
Sulfide	ug/L	N	NS	-	700U	-	530U	-	530U	-	530U	-	530U	-	880J	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051
			Sample Date	03/30/2007	09/20/2007	09/21/2007	10/11/2007	03/10/2008	03/11/2008	08/27/2008	08/28/2008	02/26/2009	02/27/2009	09/28/2009	09/29/2009	04/05/2010
			Field Sample ID	M051A8X	M051A9	M051A9X	M051B1	M051B2	M051B2X	M051B3	M051B3X	M051B4	M051B4X	M051B5	M051B5X	M051B6
			SDG	1031765	1057469	1057469	1060617	1081108	1081108	1107601	1107601	1134114	1134114	1163942	1163942	RFS37
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	3.09	-	3.4	-	3.29	-	3.04	-	3.12
DO	mg/L	N	NS	-	-	-	-	0	-	0	-	0	-	5.89	-	0.1
ORP	millivolts	N	NS	-	-	-	-	-78	-	-86	-	-22	-	-79	-	-53
pH	pH Units	N	NS	-	-	-	-	6.39	-	6.40	-	6.31	-	5.99	-	5.95
Alkalinity to pH 4.5	ug/L	N	NS	208000	-	207000	-	-	286000	-	204000	-	231000	-	210000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	10.0U	-	14.2J	-	10.0U	-	7.2U	-	7.2U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	26	-	11	7	-	4J	-	0.8J	-	0.8J	-	5J	-
Iron	ug/L	N	300	-	62900	-	-	67800	-	66000	-	69200	-	64000	-	51600
Iron	ug/L	Y	300	-	63100	-	-	67700	-	62300	-	69000	-	62500	-	48400
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	10000U	-	17200J	-	-	12500U	-	13800J	-	12500U	-	8400	-
Sulfide	ug/L	N	NS	530U	-	530U	-	-	530U	-	530U	-	710J	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0051	MW-0073	MW-0073
			Sample Date	04/06/2010	08/16/2010	08/17/2010	05/18/2011	05/19/2011	09/26/2011	09/27/2011	05/08/2012	05/08/2012	07/02/2013	07/03/2013	09/21/2005	09/22/2005
			Field Sample ID	M051B6X	M051B7	M051B7X	M051B8	M051B8X	M051B9	M051B9X	M051C1	M051C1X	M051C2	M051C2X	M073A1	M073A1X
			SDG	RFS37	RFS64	RFS64	RFT23	RFT23	RFT73	RFT73	RFU54	RFU54	RFB29	RFB29	960339	960339
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.12	-	-	6.14	-	4.32	-	-	-	0.99	-	4.38	-
DO	mg/L	N	NS	0	-	-	3.3	2.43	3.53	3.03	2.95	2.95	3.14	5.21	0.34	-
ORP	millivolts	N	NS	0	-	-	1	-	-37	-	-37	-37	-132	-	-173	-
pH	pH Units	N	NS	0.00	-	-	6.48	-	6.46	-	6.23	6.23	5.97	-	6.59	-
Alkalinity to pH 4.5	ug/L	N	NS	236000	-	223000	-	276000	-	-	-	-	-	-	-	482000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	-	-	-	-	-	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	208000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	700U	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	208000	-	-
Arsenic	ug/L	N	3	-	9.8U	-	9.8U	-	5.1U	-	5.1U	-	1.8J	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	0.87J	-	-	-
Benzene	ug/L	N	1	7	-	0.6J	-	3J	-	13	-	12	-	43	-	7
Iron	ug/L	N	300	-	70800	-	73200	-	-	-	-	-	80100	-	61800	-
Iron	ug/L	Y	300	-	68000	-	72800	-	-	-	-	-	78700	-	60600	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	-	-	-	-	40U	-	400U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	10000U	-	12500U	-	10000U	-	-	-	-	-	10000U	-	7500U
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	-	-	-	-	600U	-	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073
			Sample Date	11/16/2005	11/17/2005	01/12/2006	07/11/2006	10/24/2006	12/18/2006	02/20/2007	04/10/2007	04/11/2007	07/12/2007	10/11/2007	01/22/2008	08/27/2008
			Field Sample ID	M073A2	M073A2X	M073A3	M073A4	M073A5	M073A6	M073A7	M073A8	M073A8X	M073A9	M073B1	M073B2	M073B3
			SDG	967951	967951	974193	996874	1011503	1018856	1026191	1033234	1033234	1046717	1060617	1074539	1107601
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.27	-	-	-	-	-	-	-	-	-	-	-	5.12
DO	mg/L	N	NS	0	-	-	-	-	-	-	-	-	-	-	-	0.67
ORP	millivolts	N	NS	-153	-	-	-	-	-	-	-	-	-	-	-	-3
pH	pH Units	N	NS	6.37	-	-	-	-	-	-	-	-	-	-	-	6.73
Alkalinity to pH 4.5	ug/L	N	NS	-	256000	-	-	-	-	-	-	124000	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	-	-	-	-	-	460U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	6	6	0.7J	0.8J	2J	6	-	1J	7	21	1J	-
Iron	ug/L	N	300	43300	-	-	-	-	-	-	14800	-	-	-	-	3690
Iron	ug/L	Y	300	43700	-	-	-	-	-	-	213	-	-	-	-	944
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	-	-	-	-	40U	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	6000U	-	-	-	-	-	-	288000	-	-	-	-
Sulfide	ug/L	N	NS	-	530U	-	-	-	-	-	-	530U	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073	MW-0073
			Sample Date	08/28/2008	10/15/2008	01/14/2009	05/08/2009	08/24/2009	11/24/2009	10/21/2010	10/22/2010	09/22/2011	05/08/2012	11/25/2015	05/20/2016	06/14/2017
			Field Sample ID	M073B3X	M073B4	M073B5	M073B6	M073B7	M073B8	M073B9	M073B9X	M073C1X	M073C2X	M073C3X	M073C4	M073C5
			SDG	1107601	1115235	1128343	1144083	1159245	1172692	RFS74	RFS74	RFT71	RFU54	CS320	CS404	CS572
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	4.13	5.11	0.54	0.05	3.85	3.51	3.21
DO	mg/L	N	NS	-	-	-	-	-	-	0.81	0	7.64	3.71	2.06	2.39	2.15
ORP	millivolts	N	NS	-	-	-	-	-	-	-120	-140	-88	-102	-97	175	74
pH	pH Units	N	NS	-	-	-	-	-	-	6.49	6.35	6.70	6.91	6.75	5.56	7.73
Alkalinity to pH 4.5	ug/L	N	NS	178000	-	-	-	-	-	-	352000	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	-	-	-	-	-	460U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	7	1J	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	110000	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	101000	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	-	-	-	40U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	201000	-	-	-	-	-	-	20500	-	-	-	-	-
Sulfide	ug/L	N	NS	530U	-	-	-	-	-	-	530U	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090
			Sample Date	03/12/2003	03/12/2003	05/15/2003	11/19/2003	08/26/2004	03/03/2005	03/03/2005	08/23/2005	08/23/2005	03/21/2006	03/21/2006	09/25/2006	09/26/2006
			Field Sample ID	M090A1X	M090A1Y	M090A2	M090A4	M090A5	M090A6	M090A6X	M090A7	M090A7X	M090A8	M090A8X	M090A9	M090A9X
			SDG	RFE67	RFE67	RFE74	RFE93	RFF21	RFF41	RFF41	956523	956523	982474	982474	1007507	1007507
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	8.01	-	-	8.62	8.62	-	-	-	-
DO	mg/L	N	NS	0.83	0.83	-	-	0.81	-	-	2.3	2.3	-	-	-	-
ORP	millivolts	N	NS	-81	-81	-	-	-151	-	-	-122	-122	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	6.61	-	-	6.14	6.14	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	476000	-	603000	-	522000	-	593000	-	477000	-	564000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	410U	-	410U	-	410U	-	410U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	490000	476000	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	17	-	17.7	22.4	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	3600	6300	10000	11000	-	2500	-	12000	-	12000	-	13000
Iron	ug/L	N	300	20400	-	41.8	60900	15100	11800	-	19100	-	22100J	-	30800J	-
Iron	ug/L	Y	300	-	-	-	-	14000	9490	-	20900	-	18800J	-	27500J	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	40U	200U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	3000U	3000U	-	6000U	-	127000	-	6000U	-	7500U	-	6000U
Sulfide	ug/L	N	NS	-	-	-	-	530U	-	1500J	-	3100	-	3300	-	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090
			Sample Date	03/29/2007	03/30/2007	09/17/2007	09/18/2007	04/07/2008	04/08/2008	09/22/2008	09/23/2008	05/11/2009	05/11/2009	09/01/2009	12/03/2009	04/08/2010
			Field Sample ID	M090B1	M090B1X	M090B2	M090B2X	M090B3	M090B3X	M090B4	M090B4X	M090B5	M090B5X	M090B6	M090B7	M090B8
			SDG	1031765	1031765	1056766	1056766	1085453	1085453	1111596	1111596	1144240	1144240	1160143	1173658	GWC54
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	8.76	-	8.7	-	10.82	10.82	-	-	10.86
DO	mg/L	N	NS	-	-	-	-	0.11	-	0	-	1.13	1.13	-	-	2.08
ORP	millivolts	N	NS	-	-	-	-	-143	-	-83	-	-127	-127	-	-	-102
pH	pH Units	N	NS	-	-	-	-	6.28	-	6.04	-	7.53	7.53	-	-	6.88
Alkalinity to pH 4.5	ug/L	N	NS	-	523000	-	557000	-	379000	-	537000	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	10.0U	-	13.0J	-	20.4	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	9200	-	8900	-	5900	-	11000	-	12000	2700	1000	11
Iron	ug/L	N	300	39200	-	48800	-	8280	-	29500	-	-	-	-	-	-
Iron	ug/L	Y	300	27400	-	49200	-	7060	-	28300	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	400U	-	2000U	-	40U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	19900J	-	12500U	-	5000U	-	10000U	-	-	-	-	-
Sulfide	ug/L	N	NS	-	530U	-	1900J	-	530U	-	1200J	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090
			Sample Date	07/08/2010	07/13/2010	10/05/2010	10/28/2010	02/14/2011	02/16/2011	05/12/2011	08/08/2011	08/10/2011	08/01/2012	12/18/2012	12/18/2012
			Field Sample ID	M090B9	M090C1X-100713	M090C2	M090C3	M090C4	M090C4X	M090C5	M090C6	M090C6X	M090C7	D1218128	M090C8
			SDG	RFS54	RFS55	RFS70	RFS76	RFS86	RFS89	RFT20	RFT53	RFT55	RFV23	RFX24	RFX24
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.47	9.4	-	9.8	-	-	0	0.54	1.56	1.01	8.45	8.45
DO	mg/L	N	NS	0.63	6.9	-	0	-	-	8.87	8.78	8.52	8.9	11.16	11.16
ORP	millivolts	N	NS	-85	-140	-	0	-	-	-36	-28	-97	-102	-89	-89
pH	pH Units	N	NS	8.31	6.64	-	0.00	-	-	6.89	6.71	6.74	12.46	6.22	6.22
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	9.8U	-	-	9.8U	19.0J	-	-	5.1U	-	55.6	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	55	6	-	-	2J	21	-	14	-	3J	0.9J
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-0090	MW-10	MW-10	MW-10	MW-10	MW-10
			Sample Date	11/25/2013	11/26/2013	09/15/2014	09/16/2014	11/21/2017	11/21/2017	01/31/2018	02/01/2018	10/09/2002	10/10/2002	01/27/2003	01/27/2003	07/23/2003
			Field Sample ID	M090C9	M090C9X	M090D1	M090D1X	M090D5	M090D5X	M090D6	M090D6X	M010A1X	M010A1Y	M010A2X	M010A2Y	M010A3
			SDG	CS048	CS048	CS156	CS156	CQ898	CQ898	CQ958	CQ960	RFE28	RFE28	RFE61	RFE61	RFE83
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.7	0.49	1.75	-	-	-	-	3.99	-	-	-	-	-
DO	mg/L	N	NS	13.69	9.18	12.91	9.01	-	-	-	8.81	-	7.15	5.16	5.16	-
ORP	millivolts	N	NS	-161	-292	-318	-	-	-	-	-26.4	-	-23	220	220	-
pH	pH Units	N	NS	6.28	6.13	7.40	-	-	-	-	6.06	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	410U	165000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	410U	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	219000	-	118000	-	-	-	-	-	174000	-	410U	165000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	219000	-	118000	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	11.9	-	2.8	-	7.5	-	5.1	-	4.9U	-	4.9U	-	7.6J
Arsenic	ug/L	Y	3	13.0	-	1.4J	-	6.9	-	2.8	-	-	-	-	-	-
Benzene	ug/L	N	1	-	1J	-	0.5U	-	3	-	0.9J	-	0.5U	-	0.5U	0.5U
Iron	ug/L	N	300	22100	-	1650	-	30300	-	13700	-	34.9U	-	91J	-	98.0J
Iron	ug/L	Y	300	21800	-	495	-	29600	-	9500	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	-	-	-	-	6600	-	5900	5200
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	601000	-	58600	-	53000	-	83200	-	39000	-	3000U	45700
Sulfide	ug/L	N	NS	-	780J	-	600U	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10
			Sample Date	10/22/2003	08/19/2004	03/29/2005	08/23/2005	03/21/2006	09/12/2006	03/23/2007	03/17/2008	03/18/2008	02/27/2009	04/01/2010	04/29/2011	04/29/2011
			Field Sample ID	M010A4	M010A5	M010A6	M010A7	M010A8	M010A9	M010B1	M010B2	M010B2X	M010B3X	M010B4X	D0429111	M010B5X
			SDG	RFE90	RFF19	RFF46	956523	982474	1005262	1030794	1082191	1082191	1134114	RFS36	RFT15	RFT15
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	13.07	-	-	-	4.06	4.06
DO	mg/L	N	NS	-	-	-	-	-	-	-	6.7	-	-	-	0	0
ORP	millivolts	N	NS	-	-	-	-	-	-	-	130	-	-	-	0	0
pH	pH Units	N	NS	-	-	-	-	-	-	-	7.58	-	-	-	0.00	0.00
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	-	-	-	-	-	-	10.0U	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	273	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	5000	1800	4600	4500	4900	4300	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-131	MW-131	MW-131	MW-131
			Sample Date	03/28/2013	03/28/2013	01/14/2014	08/20/2014	09/17/2014	10/21/2014	01/20/2015	10/21/2015	10/26/2017	10/07/2002	12/03/2002	12/03/2002	12/03/2002
			Field Sample ID	M010B6	M010B6	M010B7X	M010B8X	M010B9X	M010C1X	M010C2X	M010C3X	M010C8X	M131A1Y	M131A1	M131A1	M131A1
			SDG	RFX24	RFY40	CP259	CP475	CP508	CP552	CP649	CP897	CQ846	RFE26	RFE26	RFE38	RFE43
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.79	6.79	4.53	0.44	-	16.94	5.57	-	0.48	-	-	-	-
DO	mg/L	N	NS	21.42	21.42	20.01	13	-	16.52	18.25	-	17	0.85	-	-	-
ORP	millivolts	N	NS	-77	-77	103.6	228.9	-	167	80.5	-	59.9	-107	-	-	-
pH	pH Units	N	NS	7.09	7.09	7.35	6.99	-	7.52	7.32	-	7.34	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	334000	-	-	408000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	410	-	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	334000	334000	-	408000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	20.7	20.7	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	180	-	-	490
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	12700	-	9960	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	40	40U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	94200J	28000	-	-	6100J
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131
			Sample Date	01/27/2003	01/27/2003	01/28/2003	04/30/2003	06/20/2003	11/06/2003	11/07/2003	08/12/2004	11/29/2004	11/30/2004	03/08/2005	03/08/2005	09/14/2005
			Field Sample ID	M131A2X	M131A2Y	M131A2Z	M131A2	M131A3	M131A4	M131A4A	MW131A5	M131A6	M131A6X	M131A7	M131A7X	M131A8
			SDG	RFE61	RFE61	RFE61		RFE77	RFE92	RFE92	RFF20	RFF34	RFF34	RFF41	RFF41	959422
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	6.66
DO	mg/L	N	NS	-	-	-	1.38	1.1	-	-	-	-	-	-	-	0.4
ORP	millivolts	N	NS	-	-	-	0	-82	-	-	-	-	-	-	-	-144
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	6.06
Alkalinity to pH 4.5	ug/L	N	NS	-	-	395000	355000	322000	-	-	368000	-	299000	-	299000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	410U	410	410U	-	-	410U	-	410U	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	395000	355000	322000	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	-	-	9.6	14.5	15.1	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	870	-	1100	630	-	530	820	-	200	-	810	-
Iron	ug/L	N	300	2390	-	-	6990	14200	12000	-	9410	8200	-	5420	-	11500
Iron	ug/L	Y	300	-	-	-	-	-	-	-	7290	6990	-	4150	-	10900
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40	400U	-	40U	200U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	4400J	7500	7400J	-	-	1500U	-	20800	-	7100	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	530U	-	530U	-	640J	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131
			Sample Date	09/15/2005	03/13/2006	03/14/2006	09/11/2006	09/12/2006	04/17/2007	04/18/2007	03/05/2008	03/06/2008	02/23/2009	02/23/2009	04/05/2010	04/06/2010
			Field Sample ID	M131A8X	M131A9	M131A9X	M131B1	M131B1X	M131B2	M131B2X	M131B3	M131B3X	M131B4	M131B4X	M131B5	M131B5X
			SDG	959422	981574	981574	1005262	1005262	1034314	1034314	1080472	1080472	1133329	1133329	RFS37	RFS37
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	6.3	6.3	5.98	7.39
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	0	0	2.93	5.41
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-65	-65	68	32
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	7.39	7.39	6.34	6.85
Alkalinity to pH 4.5	ug/L	N	NS	327000	-	253000	-	342000	-	239000	-	219000	-	226000	-	194000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	10.0U	-	10.0U	-	7.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	120	-	280	-	350	-	280	-	310	-	300	-	360
Iron	ug/L	N	300	-	4300	-	14000J	-	8300	-	4410	-	3000	-	5340	-
Iron	ug/L	Y	300	-	1140	-	12200J	-	7150	-	1820	-	969	-	1780	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	400U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	24400	-	19000	-	6100	-	23500	-	18800	-	50000U	-	2500U
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	1500J	-	103000	-	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131
			Sample Date	04/28/2011	04/29/2011	06/05/2012	06/06/2012	04/29/2013	04/30/2013	11/08/2013	11/08/2013	11/08/2013	01/08/2014	01/10/2014	06/09/2014	06/10/2014
			Field Sample ID	M131B6	M131B6X	M131B7	M131B7X	M131B8	M131B8X	D1108138	M131B9	M131B9X	M131C1X	M131C1	M131C2	M131C2X
			SDG	RFT15	RFT15	RFU79	RFU79	RFZ22	RFZ22	CP193	CP193	CP193	CP251	CP253	CS110	CS110
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.69	0	1.24	2.52	-	-	0.38	0.38	0.38	6.08	-	1.18	1.55
DO	mg/L	N	NS	14.09	8.17	14.25	9.08	-	-	12.89	12.89	12.89	13.6	-	13.78	8.11
ORP	millivolts	N	NS	-39	24	-48	-2	-	-	-63	-63	-63	-68.2	-	-155	-343
pH	pH Units	N	NS	6.93	6.53	6.99	6.51	-	-	6.71	6.71	6.71	7.08	-	6.94	6.58
Alkalinity to pH 4.5	ug/L	N	NS	-	233000	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	273000	-	-	-	-	-	-	254000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	700U	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	273000	-	-	-	-	-	-	254000
Arsenic	ug/L	N	3	9.8U	-	6.8J	-	2.3	-	7.4	7.7	-	-	10.2	7.6	-
Arsenic	ug/L	Y	3	-	-	-	-	2.4	-	4.4	4.2	-	-	6.0	6.9	-
Benzene	ug/L	N	1	-	370	-	370	-	380	210	-	220	220	-	-	270
Iron	ug/L	N	300	13000	-	-	-	2840	-	9160	8800	-	-	7540	12900	-
Iron	ug/L	Y	300	10900	-	-	-	1500	-	586	486	-	-	3450	11900	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	-	40U	-	-	-	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	3900J	-	-	-	2500U	1500U	-	1500U	13600	-	-	7800
Sulfide	ug/L	N	NS	-	530U	-	-	-	880J	-	-	-	-	-	-	600U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131	MW-131R	MW-131R	MW-132	MW-132	MW-132
			Sample Date	03/17/2015	06/29/2015	07/20/2015	07/20/2015	07/20/2015	10/05/2015	10/29/2015	10/30/2015	12/06/2017	12/06/2017	11/14/2002	11/14/2002	02/24/2003
			Field Sample ID	M131C3	M131C4	M131C5	M131C5	M131C5X	M131C6	M131C7	M131C7X	M131RD8	M131RD8X	M132A1X	M132A1Y	M132A2X
			SDG	CP669	CP761	CP786	CP787	CP786	CP859	CP915	CP916	CQ916	CQ916	RFE38	RFE38	RFE65
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.73	-	4.94	4.94	4.94	-	-	-	0.53	0.53	-	-	-
DO	mg/L	N	NS	7.83	-	13.4	13.4	13.4	-	-	-	6.96	6.96	1.14	1.14	1.25
ORP	millivolts	N	NS	-35.7	-	-69	-69	-69	-	-	-	-100.6	-100.6	-123	-123	-72
pH	pH Units	N	NS	7.14	-	6.56	6.56	6.56	-	-	-	7.16	7.16	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	705000	-	692000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410U	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	349000	705000	-	692000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	349000	-	-	-
Arsenic	ug/L	N	3	3.1	11.4	11.5	-	-	13.3J-	29.6	-	46.5	-	-	37.2	-
Arsenic	ug/L	Y	3	-	-	-	11.5	-	-	28.3	-	40	-	-	-	-
Benzene	ug/L	N	1	-	-	-	-	140	-	-	45	-	2	700	-	900
Iron	ug/L	N	300	3300	58800	38800	-	-	148000J-	276000	-	164000	-	-	20500	-
Iron	ug/L	Y	300	-	-	-	37200	-	-	274000	-	155000	-	-	-	-
Methane	ug/L	N	NS	3900	4500	-	-	-	4000J-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	250U	-	-	-	490J-	-	-	-	40U	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	111000	709000	-	-	6950000	13800000J-	-	29800000	-	1120000	3000U	-	3000U
Sulfide	ug/L	N	NS	680U	700J	-	-	-	1100J-	-	-	-	700U	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132
			Sample Date	02/24/2003	08/30/2004	04/05/2005	04/05/2005	09/14/2005	09/15/2005	03/20/2006	03/21/2006	09/07/2006	09/08/2006	04/11/2007	04/11/2007	03/24/2008
			Field Sample ID	M132A2Y	M132A4	M132A5	M132A5X	M132A6	M132A6X	M132A7	M132A7X	M132A8	M132A8X	M132A9	M132A9X	M132B1
			SDG	RFE65	RFF22	RFF47	RFF47	959422	959422	982474	982474	1004877	1004877	1033234	1033234	1083150
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	3.74	3.74	4.37
DO	mg/L	N	NS	1.25	-	-	-	-	-	-	-	-	-	0	0	0
ORP	millivolts	N	NS	-72	-	-	-	-	-	-	-	-	-	-141	-141	-201
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	6.43	6.43	8.11
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	30	51.4	4.7U	-	46.0	-	53.0J	-	30.5J	-	69.6	-	39.8
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	720	-	920	-	1300	-	640	-	1000	-	570	-
Iron	ug/L	N	300	16500	21200	49.5U	-	20500	-	18500J	-	24600J	-	35200	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132
			Sample Date	03/25/2008	09/18/2008	09/19/2008	04/07/2009	04/08/2009	10/07/2009	10/08/2009	03/31/2010	04/01/2010	08/18/2010	08/19/2010	05/16/2011	05/17/2011
			Field Sample ID	M132B1X	M132B5	M132B5X	M132B6	M132B6X	M132B7	M132B7X	M132B8	M132B8X	M132B9	M132B9X	M132C1	M132C1X
			SDG	1083150	1111172	1111172	1139653	1139653	1165848	1165848	RFS36	RFS36	RFS64	RFS64	RFT22	RFT22
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	4.55	-	4.19	-	4.55	-	3.76	3.71	5.33	5.36	17.62	-
DO	mg/L	N	NS	-	0	-	0	-	0.5	-	0	0	1.09	0	4.72	3.98
ORP	millivolts	N	NS	-	-99	-	-188	-	-78	-	-127	-100	-147	0	-61	-
pH	pH Units	N	NS	-	6.70	-	6.35	-	6.04	-	6.41	6.40	6.95	0.00	6.86	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	37.5	-	77.7	-	63.2	-	50.4	-	75.4	-	74.3	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	590	-	630	-	560	-	670	-	490	-	600	-	570
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132
			Sample Date	04/23/2012	04/23/2012	04/23/2012	11/14/2012	11/14/2012	11/14/2012	01/29/2013	05/10/2013	05/10/2013	05/10/2013	07/03/2013	07/03/2013	07/03/2013
			Field Sample ID	D0423124	M132C2	M132C2X	D1114127	M132C3	M132C3X	M132C4	D0510138	M132C5	M132C5X	D0703138	M132C6	M132C6X
			SDG	RFU48	RFU48	RFU48	RFX05	RFX05	RFX05	RFX41	RFZ38	RFZ38	RFZ38	CP033	CP033	CP033
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	FD	REG	REG	REG	FD	REG	REG	FD	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	42.85	42.85	42.85	0.47	0.47	0.47	4.47	0	0	0	0	0	0
DO	mg/L	N	NS	5.01	5.01	5.01	4.6	4.6	4.6	4.9	4.69	4.69	4.69	4.2	4.2	4.2
ORP	millivolts	N	NS	-344	-344	-344	97.7	97.7	97.7	-101.6	-520.4	-520.4	-520.4	-511	-511	-511
pH	pH Units	N	NS	11.94	11.94	11.94	6.41	6.41	6.41	6.53	12.82	12.82	12.82	13.29	13.29	13.29
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	635000	-	617000	-	70000U	-	70000U	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	635000	-	617000	-	29400000J	-	20300000J	9460000	-	9600000
Arsenic	ug/L	N	3	91.4	94.1	-	69.8	70.4	-	31.0	4130J-	3240J-	-	4210	3900	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	29.4	3810J-	3650J-	-	3800	4160	-
Benzene	ug/L	N	1	-	-	590	430	-	360	-	640	-	610	820J	-	520J
Iron	ug/L	N	300	13000	13500	-	14500	14000	-	19000	4210J-	3420J-	-	6010	7640	-
Iron	ug/L	Y	300	-	-	-	-	-	-	16700	2800J-	2550J-	-	5770	7060	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	15700	-	16300	-	7540000J	-	18000000J	7440000	-	7870000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132
			Sample Date	10/18/2013	10/18/2013	10/18/2013	12/12/2013	12/12/2013	12/12/2013	12/12/2013	12/12/2013	04/01/2014	04/01/2014	04/01/2014	04/01/2014	04/03/2014
			Field Sample ID	D1018138	M132C7	M132C7X	D1212138	D1212138	M132C8	M132C8	M132C8X	D0401148	D0401148	M132C9	M132C9	D0403148
			SDG	CP155	CP155	CP155	CP236	CP237	CP236	CP237	CP236	CP292	CP293	CP292	CP293	CP298
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	FD	FD	REG	REG	REG	FD	FD	REG	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.81	3.81	3.81	0	0	0	0	0	1.28	1.28	1.28	1.28	0.35
DO	mg/L	N	NS	8.03	8.03	8.03	8.98	8.98	8.98	8.98	8.98	6.77	6.77	6.77	6.77	6.28
ORP	millivolts	N	NS	-276	-276	-276	-443.8	-443.8	-443.8	-443.8	-443.8	-507.3	-507.3	-507.3	-507.3	-529.6
pH	pH Units	N	NS	13.18	13.18	13.18	11.37	11.37	11.37	11.37	11.37	9.78	9.78	9.78	9.78	10.24
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	35000U	-	35000U	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	10800000	-	10900000	10200000	-	-	-	4030000	-	-	-	-	-
Arsenic	ug/L	N	3	5310	5090	-	3960	-	3380	-	-	204	-	206	-	-
Arsenic	ug/L	Y	3	5420J+	5150J+	-	-	3300	-	3510	-	-	193	-	184	-
Benzene	ug/L	N	1	160	-	150	220J	-	-	-	170J	-	-	-	-	490
Iron	ug/L	N	300	12400	5920	-	4080	-	3560	-	-	40300	-	42100	-	-
Iron	ug/L	Y	300	7650	5590	-	-	832J	-	886J	-	-	32300	-	32500	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	46100000	-	48600000	29700000	-	-	-	28800000	-	-	-	-	5540000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	2900
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132
			Sample Date	04/03/2014	07/11/2014	07/11/2014	07/11/2014	07/11/2014	07/11/2014	09/11/2014	09/11/2014	09/11/2014	09/11/2014	09/11/2014	01/13/2015	01/15/2015
			Field Sample ID	M132C9X	D0711148	D0711148	M132D1	M132D1	M132D1X	D0911148B	D0911148B	M132D2	M132D2	M132D2X	D0115158B	M132D3
			SDG	CP298	CP411	CP412	CP411	CP412	CP411	CP502	CP503	CP502	CP503	CP502	CP643	CP643
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	FD	REG	REG	REG	FD	FD	REG	REG	REG	FD	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.35	0.04	0.04	0.04	0.04	0.04	0.4	0.4	0.4	0.4	0.4	-	0.31
DO	mg/L	N	NS	6.28	7.91	7.91	7.91	7.91	7.91	4.96	4.96	4.96	4.96	4.96	-	6.75
ORP	millivolts	N	NS	-529.6	-35	-35	-35	-35	-35	-271.6	-271.6	-271.6	-271.6	-271.6	-	-359.7
pH	pH Units	N	NS	10.24	9.19	9.19	9.19	9.19	9.19	9.54	9.54	9.54	9.54	9.54	-	9.76
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	654	-	766J	-	-	209	-	206	-	-	131	131J
Arsenic	ug/L	Y	3	-	-	611	-	613	-	-	211	-	201	-	137	146
Benzene	ug/L	N	1	510	300	-	-	-	260	240	-	-	-	230	220	-
Iron	ug/L	N	300	-	11100	-	13000	-	-	4900	-	4650	-	-	1460	1900
Iron	ug/L	Y	300	-	-	141J	-	156J	-	-	76.4J	-	96.5J	-	1950	1870J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	6130000J+	10300000	-	-	-	10400000	12000000	-	-	-	5700000	13500000	-
Sulfide	ug/L	N	NS	2300J	4700J	-	-	-	7100J	4800	-	-	-	4600	10300	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132	MW-132R	MW-132R	MW-132R	MW-132R	MW-14	MW-14
			Sample Date	01/15/2015	04/21/2015	04/21/2015	04/21/2015	07/22/2015	07/22/2015	07/22/2015	10/18/2017	10/18/2017	01/09/2018	01/09/2018	12/18/1995	02/22/1996
			Field Sample ID	M132D3X	D0421158	M132D4	M132D4X	D0722158	M132D5	M132D5X	M132RE3	M132RE3X	M132RE4	M132RE4X	MW-0014-A2	MW-0014-AY
			SDG	CP643	CP689	CP689	CP689	CP790	CP790	CP790	CQ825	CQ825	CQ935	CQ935	55315	60667
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.31	0.04	0.04	0.04	0.38	0.38	0.38	0.35	0.35	-	-	-	-
DO	mg/L	N	NS	6.75	7.32	7.32	7.32	7.32	7.32	7.32	4.21	4.21	-	-	-	-
ORP	millivolts	N	NS	-359.7	-340.9	-340.9	-340.9	-341	-341	-341	-88.5	-88.5	-	-	-	-
pH	pH Units	N	NS	9.76	9.13	9.13	9.13	9.47	9.47	9.47	7.08	7.08	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	280000	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	280000	-	-	-	-
Arsenic	ug/L	N	3	-	88.2	89.8	-	97.6	97.7J	-	5.8	-	5.4	-	8.7B*	10U
Arsenic	ug/L	Y	3	-	92.9	90.0	-	96.7J	113J	-	5.4	-	5.3	-	-	-
Benzene	ug/L	N	1	220	600	-	600	360J-	-	480J-	-	6J	-	9	5U	1U
Iron	ug/L	N	300	-	4510	4220	-	624	842J+	-	11100	-	13600	-	-	-
Iron	ug/L	Y	300	-	280	202	-	63.0J	63.9J	-	8390	-	13500	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	250U	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	13700000	2060000	-	2190000	2420000J-	-	2420000J-	-	1830000	-	1430000	-	-
Sulfide	ug/L	N	NS	10300	6600	-	6600	10300J-	-	9100J-	-	700U	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14
			Sample Date	04/17/1996	10/18/1995	12/18/1995	02/22/1996	04/17/1996	10/10/2002	10/10/2002	01/28/2003	01/29/2003	11/12/2003	08/16/2004	03/23/2005
			Field Sample ID	MW-0014-AX	MW-0014A-1	MW-0014-A2	MW-0014-AY	MW-0014-AX	M014A1X	M014A1Y	M014A2X	M014A2Y	M014A3	M014A4	M014A5
			SDG	61449	54377	55315	60667	61449	RFE28	RFE28	RFE61	RFE61	RFE92	RFF19	RFF44
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	1.61	1.61	4.87	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	214	214	236	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	192000	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	410U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	246000	-	192000	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	7.7B*	29.70	8.7B*	10U	7.7B*	4.9U	-	4.9U	-	4.9U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1U	1.00U	5U	1U	1U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	-	-	1830	-	488	-	474	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	40U	-	40U	40U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	190000	-	165000	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14
			Sample Date	08/16/2005	03/23/2006	09/08/2006	03/21/2007	03/11/2008	02/27/2009	03/11/2010	03/29/2011	05/02/2012	06/25/2013	09/23/2014	07/07/2015	07/08/2015
			Field Sample ID	M014A6	M014A7	M014A8	M014A9	M014B1X	M014B2X	M014B3X	M014B4X	M014B5X	M014B6X	M014B7X	M014B8	M014B8X
			SDG	955618	982888	1004877	1030299	1081108	1134114	RFS33	RFT03	RFU51	RFB18	CS159	CS258	CS258
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	7.57	2.92	1.18	2.92	-	5.96
DO	mg/L	N	NS	-	-	-	-	-	-	-	3.74	3.84	4.15	8.54	-	11.87
ORP	millivolts	N	NS	-	-	-	-	-	-	-	202	170	-170	107	-	142
pH	pH Units	N	NS	-	-	-	-	-	-	-	6.92	6.42	6.51	6.60	-	6.35
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	193000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	193000
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	0.87J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	0.95J	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	76.4J	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	33.4U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	76700
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	680U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-141	MW-141	MW-141
			Sample Date	01/06/2016	01/07/2016	08/04/2016	08/05/2016	02/07/2017	02/16/2017	02/17/2017	04/18/2017	08/24/2017	08/25/2017	12/03/2002	12/03/2002	03/06/2003
			Field Sample ID	M014B9	M014B9X	M014C1	M014C1X	M014C3	M014C4	M014C4X	M014C5	M014C6	M014C6X	M141A1X	M141A1Y	M141A2X
			SDG	CS337	CS337	CS438	CS438	CQ524	CS516	CS516	CQ594	CS594	CS594	RFE43	RFE43	RFE66
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	4.07	-	5.12	-	-	3.98	-	-	4.51	-	-	-
DO	mg/L	N	NS	-	6.24	-	2.42	-	-	10.27	-	-	5.64	2.89	2.89	3.26
ORP	millivolts	N	NS	-	-35	-	33	-	-	99	-	-	-5.7	235	235	130
pH	pH Units	N	NS	-	7.32	-	6.62	-	-	6.32	-	-	7.16	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	159000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	173000	-	239000	131000	-	120000	148000J	-	-	159000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	1700U	-	-	1700U	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	173000	-	239000	131000	-	120000	148000J	-	-	-	-	-
Arsenic	ug/L	N	3	0.54U	-	0.92J	-	0.68U	1.0J	-	0.68UJ	-	-	-	4.9U	4.9U
Arsenic	ug/L	Y	3	0.54U	-	0.68U	-	0.68U	0.68U	-	0.68UJ	0.72U	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	-	-	-	0.5U	-	-	0.5U	29	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	227	250
Iron	ug/L	Y	300	162J	-	105J	-	74.7U	302	-	115J	-	-	-	-	-
Methane	ug/L	N	NS	33.3U	-	74.7U	-	74.7U	74.7U	-	74.7UJ	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	40U	-	-
Sulfate	ug/L	N	NS	-	40U	-	48J	250U	-	120	250UJ	-	40U	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	132000	-	-
Sulfide	ug/L	N	NS	-	138000	-	90300	191000	-	205000	156000J	-	153000	-	-	-
Sulfide	ug/L	Y	NS	-	680U	-	700U	700U	-	700U	700UJ	-	700U	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141
			Sample Date	03/06/2003	07/24/2003	10/23/2003	10/24/2003	08/25/2004	04/11/2005	04/12/2005	09/14/2005	09/15/2005	04/05/2006	04/06/2006	09/13/2006	04/23/2007
			Field Sample ID	M141A2Y	M141A3	M141A4	M141A4A	M141A5	M141A6	M141A6X	M141A7	M141A7X	M141A8	M141A8X	M141A9	M141B1X
			SDG	RFE66	RFE83	RFE90	RFE90	RFF21	RFF48	RFF48	959422	959422	984700	984700	1005725	1035058
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	6.78	-	5.95	-	-	4.34
DO	mg/L	N	NS	3.26	0	-	-	-	-	-	0	-	4.52	-	-	0.57
ORP	millivolts	N	NS	130	219	-	-	-	-	-	12	-	294	-	-	26
pH	pH Units	N	NS	-	-	-	-	-	-	-	6.56	-	7.12	-	-	7.14
Alkalinity to pH 4.5	ug/L	N	NS	-	72100	-	-	105000	-	85900	-	128000	-	78300	139000	131000
Alkalinity to pH 8.3	ug/L	N	NS	410U	410U	-	-	410U	-	410U	-	460U	-	460U	460U	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	72100	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	22.6	5.4J	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	9	13	-	1J	0.6J	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U
Iron	ug/L	N	300	-	229	210	-	270	235	-	264	-	66.7U	-	52700J	-
Iron	ug/L	Y	300	-	-	-	-	49.5U	49.5U	-	37.8U	-	66.7U	-	52.2U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	2700	-	280	860	-	4600	-	1100	-	9100	1900	1700
Sulfate	ug/L	N	NS	84300	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	165000	-	-	138000	-	83900	-	128000	-	91300	118000	74100
Sulfide	ug/L	N	NS	-	-	-	-	530U	-	530U	-	530U	-	530U	2100	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141	MW-141
			Sample Date	04/24/2007	03/17/2008	03/18/2008	03/10/2009	03/11/2009	03/04/2010	03/04/2010	04/08/2011	04/08/2011	06/04/2012	06/05/2012	07/01/2013	07/02/2013
			Field Sample ID	M141B1	M141B2	M141B2X	M141B3	M141B3X	M141B4	M141B4X	M141B5	M141B5X	M141B6	M141B6X	M141B7	M141B7X
			SDG	1035058	1082191	1082191	1135630	1135630	RFS32	RFS32	RFT06	RFT06	RFU78	RFU78	RFB27	RFB27
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	5.49	-	3.54	-	4.89	4.89	11.09	11.09	2.06	-	0.92	1.61
DO	mg/L	N	NS	-	1.99	-	0	-	2.4	2.4	15.31	15.31	13.56	10.17	13.26	1137
ORP	millivolts	N	NS	-	171	-	122	-	130	130	85	85	122	-	-123	-114
pH	pH Units	N	NS	-	7.10	-	7.53	-	6.88	6.88	7.14	7.14	7.57	-	7.73	7.33
Alkalinity to pH 4.5	ug/L	N	NS	-	-	188000	-	168000	-	223000	-	140000	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	460U	-	460U	-	460U	-	460U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	198000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	198000
Arsenic	ug/L	N	3	-	12.3J	-	10.0U	-	7.2U	-	9.8U	-	5.1U	-	1.1J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	1.2J	-
Benzene	ug/L	N	1	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	4J	-	0.5U
Iron	ug/L	N	300	138J	1750	-	145J	-	128J	-	52.2U	-	-	-	51.6J	-
Iron	ug/L	Y	300	52.2U	52.2U	-	52.2U	-	52.2U	-	52.2U	-	-	-	43.0U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	5300	-	1400J	-	6300	-	-	-	2200
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	69700	-	101000	-	102000	-	102000	-	-	-	111000
Sulfide	ug/L	N	NS	-	-	530U	-	530U	-	530U	-	530U	-	-	-	600U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-141	MW-141	MW-141	MW-141	MW-141	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142
			Sample Date	09/16/2014	09/17/2014	09/17/2014	02/20/2018	02/21/2018	10/08/2002	10/08/2002	01/23/2003	01/23/2003	07/21/2003	10/30/2003	08/17/2004	04/07/2005
			Field Sample ID	M141B8	D0917141	M141B8X	M141C3	M141C3X	M142A1X	M142A1Y	M142A2X	M142A2Y	M142A3	M142A4	M142A5	M142A6
			SDG	CS157	CS157	CS157	CS650	CS650	RFE26	RFE26	RFE58	RFE58	RFE83	RFE91	RFF19	RFF47
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.41	1.03	1.03	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	13.73	13.04	13.04	-	-	2.67	2.67	2.11	2.11	0	-	-	-
ORP	millivolts	N	NS	-330	152	152	-	-	-32	-32	113	113	207	-	-	-
pH	pH Units	N	NS	7.60	6.99	6.99	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	410U	374000	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	410U	410U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	135000	135000	-	-	-	319000	-	410U	374000	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	700U	-	1700U	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	135000	135000	-	110000	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	1.5J	-	-	1.1J	-	4.9U	-	4.9U	-	7.1J	4.9U	-	-
Arsenic	ug/L	Y	3	1.2J	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	287	-	-	80.5U	-	554	-	542	-	4130	1880	-	-
Iron	ug/L	Y	300	34.9J	-	-	80.5U	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	190	240	-	5500	-	40U	-	40U	40J	40U	40U	80U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	78500	90000	-	72300	-	91000	-	15000U	90000	-	-	-
Sulfide	ug/L	N	NS	-	600U	600U	-	700U	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142
			Sample Date	09/15/2005	03/28/2006	09/12/2006	03/30/2007	03/17/2008	03/18/2008	03/10/2009	03/11/2009	03/04/2010	03/04/2010	04/27/2011	04/28/2011	06/04/2012
			Field Sample ID	M142A7	M142A8	M142A9	M142B1	M142B2	M142B2X	M142B3	M142B3X	M142B4	M142B4X	M142B5	M142B5X	M142B6
			SDG	959422	983381	1005262	1031765	1082191	1082191	1135630	1135630	RFS32	RFS32	RFT14	RFT14	RFU78
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	3.24	-	3.05	-	3.04	3.04	4.23	2.78	2.14
DO	mg/L	N	NS	-	-	-	-	0.77	-	0	-	3.46	3.46	12.15	6.68	14.62
ORP	millivolts	N	NS	-	-	-	-	129	-	95	-	120	120	85	99	89
pH	pH Units	N	NS	-	-	-	-	7.27	-	7.37	-	6.89	6.89	7.39	6.90	7.52
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	10.0U	-	10.0U	-	7.2U	-	9.8U	-	5.1U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	40U	40U	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-142	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143
			Sample Date	06/05/2012	07/15/2013	07/16/2013	11/13/2014	11/14/2014	02/20/2018	02/21/2018	10/08/2002	10/08/2002	01/23/2003	01/23/2003	07/23/2003	11/04/2003
			Field Sample ID	M142B6X	M142B7	M142B7X	M142B8	M142B8X	M142C3	M142C3X	M143A1X	M143A1Y	M143A2X	M143A2Y	M143A3	M143A4
			SDG	RFU78	RFB41	RFB41	CS186	CS186	CS650	CS650	RFE26	RFE26	RFE58	RFE58	RFE83	RFE91
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	3.34	1.12	3.41	4.66	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	5.27	9.93	4.56	13.82	9.25	-	-	1.23	1.23	0.94	0.94	0	-
ORP	millivolts	N	NS	-	-162	-147	-78	-147	-	-	-98	-98	20	20	147	-
pH	pH Units	N	NS	-	7.59	7.41	7.12	7.03	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410U	186000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410U	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	256000	-	258000	-	-	-	215000	-	410U	186000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	700U	-	1700U	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	256000	-	258000	-	347000	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	1.0J	-	1.2J	-	1.2J	-	104	-	56.8	-	56.0	34.7
Arsenic	ug/L	Y	3	-	4.5	-	1.0J	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U
Iron	ug/L	N	300	-	43.0U	-	180J	-	311	-	16300	-	14300	-	12600	5210
Iron	ug/L	Y	300	-	5220	-	33.4U	-	80.5U	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	210	-	1000	-	59J	-	40U	-	40.0U	40U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	28300	-	62600	-	49600	-	7500U	-	3000U	1500U	-
Sulfide	ug/L	N	NS	-	-	600U	-	600U	-	700U	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
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Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143
			Sample Date	08/19/2004	03/29/2005	08/25/2005	03/15/2006	09/14/2006	03/28/2007	03/17/2008	03/18/2008	05/18/2009	05/18/2009	03/04/2010	03/05/2010	04/27/2011
			Field Sample ID	M143A5	M143A6	M143A7	M143A8	M143A9	M143B1	M143B2	M143B2X	M143B3	M143B3X	M143B4	M143B4X	M143B5
			SDG	RFF19	RFF46	956931	981802	1005725	1031345	1082191	1082191	1145283	1145283	RFS32	RFS32	RFT14
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	6.61	-	-	-	6.07	-	8
DO	mg/L	N	NS	-	-	-	-	-	-	5.45	-	-	-	10.92	-	13.52
ORP	millivolts	N	NS	-	-	-	-	-	-	116	-	-	-	39	-	66
pH	pH Units	N	NS	-	-	-	-	-	-	8.25	-	-	-	10.09	-	8.22
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	16.8J	-	20.4	-	10.0J	-	9.8U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	660	890	240J	1100	150	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143	MW-143
			Sample Date	04/28/2011	06/04/2012	06/05/2012	07/01/2013	07/02/2013	09/16/2014	09/17/2014	10/01/2015	10/02/2015	02/20/2018	02/20/2018	02/21/2018	02/21/2018
			Field Sample ID	M143B5X	M143B6	M143B6X	M143B7	M143B7X	M143B8	M143B8X	M143B9	M143B9X	D0220181	M143C3	D0221181	M143C3X
			SDG	RFT14	RFU78	RFU78	RFB27	RFB27	CS157	CS157	CS294	CS294	CS650	CS650	CS650	CS650
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	FD	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.07	7.29	-	7.12	5.54	3.67	4.76	-	8.23	-	-	-	-
DO	mg/L	N	NS	6.69	14.02	5.47	10.56	6.31	14.54	6.91	-	14.68	-	-	-	-
ORP	millivolts	N	NS	80	87	-	-42	-22	-324	185	-	-79	-	-	-	-
pH	pH Units	N	NS	7.19	7.72	-	7.95	7.45	7.87	6.94	-	7.54	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	77100	-	102000	-	69300	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	700U	-	700U	-	700U	-	-	1700U	1700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	77100	-	102000	-	69300	-	-	59400	59900
Arsenic	ug/L	N	3	-	10.4J	-	10.5	-	9.9	-	12.9	-	10.3	10.9	-	-
Arsenic	ug/L	Y	3	-	-	-	7.8	-	3.7	-	11.3	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	2300	-	1660	-	595	-	318	568	-	-
Iron	ug/L	Y	300	-	-	-	43.0U	-	57.2J	-	33.3U	-	666	398	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	1400	-	2700	-	6900	-	-	1300	1300
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	8100	-	18300	-	48500	-	-	3700	5700
Sulfide	ug/L	N	NS	-	-	-	-	600U	-	630J	-	680U	-	-	700U	700U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144
			Sample Date	12/02/2002	12/02/2002	02/14/2003	02/14/2003	07/10/2003	10/29/2003	08/30/2004	04/04/2005	04/05/2005	09/06/2005	09/07/2005	04/03/2006	04/04/2006
			Field Sample ID	M144A1X	M144A1Y	M144A2X	M144A2Y	M144A3	M144A4	M144A5	M144A6	M144A6X	M144A7	M144A7X	M144A8	M144A8X
			SDG	RFE43	RFE43	RFE64	RFE64	RFE81	RFE91	RFF22	RFF47	RFF47	958318	958318	984270	984270
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	7.7	-	-	7.96	-	-	-
DO	mg/L	N	NS	3.12	3.12	1.3	1.3	4.12	-	1.58	-	-	4.45	-	-	-
ORP	millivolts	N	NS	-50	-50	0	0	20	-	-88	-	-	-95	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	5.95	-	-	5.91	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	1070000	-	-	1660000	915000	-	1190000	-	346000	-	654000	-	684000
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	-	410U	410U	-	410U	-	410U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	1070000	-	-	1660000	915000	-	-	-	-	-	-	-	684000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	81.7	53	-	44.6	107	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	-	0.5U	0.5J	0.5U	5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	337000	255000	-	431000	402000	465000	291	-	444000	-	358000	-
Iron	ug/L	Y	300	-	-	-	-	-	-	465000	314000	-	452000	-	360000	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	40U	1000U	40U	200U	-	80U	-	400U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1620000	-	-	650000	1710000	-	1290000	-	2270000	-	2040000	-	871000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	4000	-	3500J	-	4000	-	1400J
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144
			Sample Date	09/13/2006	04/20/2007	04/20/2007	09/12/2007	09/13/2007	03/26/2008	03/27/2008	09/10/2008	09/11/2008	03/17/2009	03/18/2009	10/07/2009	10/08/2009
			Field Sample ID	M144A9	M144B1	M144B1X	M144B2	M144B2X	M144B3	M144B3X	M144B4	M144B4X	M144B5	M144B5X	M144B6	M144B6X
			SDG	1005725	1034667	1034667	1056329	1056329	1083600	1083600	1109693	1109693	1136756	1136756	1165848	1165848
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	5.32	5.32	-	-	4.84	-	-	-	5.21	-	5.19	-
DO	mg/L	N	NS	-	0	0	-	-	4.7	-	-	-	4.08	-	0.21	-
ORP	millivolts	N	NS	-	-	-	-	-	-120	-	-	-	-100	-	-95	-
pH	pH Units	N	NS	-	-	-	-	-	6.40	-	-	-	6.16	-	5.60	-
Alkalinity to pH 4.5	ug/L	N	NS	715000	-	1020000	-	527000	-	1070000	-	293000	-	1200000	-	922000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	114	-	127	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	3U	-	3U	-	0.5U	-	0.5U
Iron	ug/L	N	300	414000J	303000	-	237000	-	315000	-	177000	-	257000	-	302000	-
Iron	ug/L	Y	300	424000J	313000	-	257000	-	289000	-	163000	-	259000	-	298000	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	400U	-	40U	-	40U	-	200U	-	40U	-	40U	-	400U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1630000	-	639000	-	1470000	-	511000	-	849000	-	916000	-	1190000
Sulfide	ug/L	N	NS	6500	-	530U	-	850J	-	530U	-	2100	-	530U	-	1300J
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144	MW-144
			Sample Date	03/17/2010	03/18/2010	08/18/2010	08/19/2010	04/06/2011	04/07/2011	06/08/2012	05/31/2013	09/24/2014	09/24/2014	05/26/2016	05/27/2016	09/14/2016
			Field Sample ID	M144B7	M144B7X	M144B8	M144B8X	M144B9	M144B9X	M144C1X	M144C2X	D0924141	M144C3X	M144C4	M144C4X	M144C5
			SDG	RFS34	RFS34	RFS64	RFS64	RFT05	RFT05	RFU81	RFZ73	CS160	CS160	CS407	CS407	CQ293
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.24	3.08	5.19	5.82	0.9	0.47	0.08	0.25	0.43	0.43	-	5.37	7.95
DO	mg/L	N	NS	3.65	4.17	0.47	0	5.21	4.71	3.89	5.95	6.49	6.49	-	22.03	1.95
ORP	millivolts	N	NS	-82	-103	-112	-110	-72	-10	-54	-136	139	139	-	629	-38.6
pH	pH Units	N	NS	5.78	6.12	6.34	6.05	6.33	6.32	6.48	6.23	6.26	6.26	-	6.12	5.65
Alkalinity to pH 4.5	ug/L	N	NS	-	461000	-	761000	-	1170000	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	420000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	420000	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	200	-	360
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	190	-	357
Benzene	ug/L	N	1	-	0.5U	-	5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	-	25U	-
Iron	ug/L	N	300	72700	-	251000	-	32000	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	72700	-	245000	-	32200	-	-	-	-	-	198000	-	147000
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	203000	-	149000
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	2300	-	40U	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	40U	-
Sulfate (SO4)	ug/L	N	250000	-	277000	-	1070000	-	236000	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	530U	-	1800J	-	530U	-	-	-	-	-	359000	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	700U	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-144	MW-144	MW-144	MW-144	MW-144	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145
			Sample Date	09/14/2016	12/22/2016	12/27/2016	05/30/2017	05/31/2017	10/02/2002	10/03/2002	01/21/2003	01/22/2003	06/18/2003	11/12/2003	08/12/2004	08/12/2004
			Field Sample ID	M144C5X	M144C6	M144C6X	M144C7	M144C7X	M145A1Y	M145A1X	M145A2Y	M145A2X	M145A	M145A3	M145A4	MW145A4
			SDG	CQ293	CQ496	CQ497	CS564	CS564	RFE24	RFE24	RFE58	RFE58	RFE77	RFE92	RFF19	RFF20
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.95	-	7.4	-	3.89	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	1.95	-	3.3	-	0.84	2.87	-	1.86	-	1.38	-	-	-
ORP	millivolts	N	NS	-38.6	-	-72.2	-	-55	226	-	467	-	196	-	-	-
pH	pH Units	N	NS	5.65	-	6.58	-	6.56	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	410U	-	410U	410U	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	410U	-	410U	410U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	504000	-	410U	-	410U	410U	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	1700U	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	504000	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	97.8	-	195	-	4.9U	-	4.9U	-	4.9U	5.3J	-	-
Arsenic	ug/L	Y	3	-	90.9	-	201	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	5UJ	-	10U	-	1U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	43600	-	10900	-	41500	26900	-	52100
Iron	ug/L	Y	300	-	87600	-	181000	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	86800	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	40U	-	40.0U	40U	40U	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	40U	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	89000	-	15000U	88200	-	-	-
Sulfide	ug/L	N	NS	345000	-	54200	-	240000	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	1800J	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145
			Sample Date	03/15/2005	08/30/2005	03/09/2006	08/24/2006	03/15/2007	03/03/2008	03/04/2008	02/19/2009	02/20/2009	03/16/2010	03/17/2010	03/28/2011	03/29/2011
			Field Sample ID	M145A5X	M145A6X	M145A7X	M145A8X	M145A9X	M145B1	M145B1X	M145B2	M145B2X	M145B3	M145B3X	M145B4	M145B4X
			SDG	RFF43	957459	981013	1003078	1029582	1080011	1080011	1133129	1133129	RFS33	RFS33	RFT03	RFT03
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	4.39	-	4.58	-	3.71	-	4.53	2.96
DO	mg/L	N	NS	-	-	-	-	-	2.09	-	1.09	-	6.27	-	15.06	4.6
ORP	millivolts	N	NS	-	-	-	-	-	452	-	445	-	310	-	304	338
pH	pH Units	N	NS	-	-	-	-	-	3.13	-	3.20	-	3.33	-	3.72	3.58
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	10.0U	-	10.0U	-	7.2U	-	9.8U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	40U	40U	40U	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-145	MW-146	MW-146	MW-146	MW-146	MW-146
			Sample Date	05/02/2012	05/03/2012	06/24/2013	06/25/2013	09/22/2014	09/23/2014	02/14/2018	02/15/2018	10/07/2002	10/07/2002	01/22/2003	01/23/2003	06/20/2003
			Field Sample ID	M145B5	M145B5X	M145B6	M145B6X	M145B7	M145B7X	M145C2	M145C2X	M146A1X	M146A1Y	M146A2Y	M146A2X	M146A3
			SDG	RFU52	RFU52	RFB18	RFB18	CS159	CS159	CS647	CS647	RFE26	RFE26	RFE58	RFE58	RFE77
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.97	3.5	1.07	1.19	0.48	1.97	-	-	-	-	-	-	-
DO	mg/L	N	NS	14.71	4.73	13.83	4.66	14.52	5.83	-	-	0.86	0.86	1	-	8.5
ORP	millivolts	N	NS	242	336	-6	59	136	146	-	-	-67	-67	-48	-	-4
pH	pH Units	N	NS	4.48	3.68	5.30	3.86	6.69	5.59	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	410U	64000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	410U	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	700U	-	700U	-	-	-	240000	-	410U	64000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	700U	-	700U	-	1700U	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	700U	-	700U	-	4400J	-	-	-	-	-
Arsenic	ug/L	N	3	5.1U	-	0.42U	-	0.82U	-	0.72U	-	79.2	-	19.4	-	4.9U
Arsenic	ug/L	Y	3	-	-	0.42U	-	0.82U	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	100	-	48	0.5U
Iron	ug/L	N	300	-	-	27900	-	54700	-	702	-	24100	-	10100	-	506
Iron	ug/L	Y	300	-	-	20800	-	52400	-	80.5U	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	40U	-	250	-	40U	-	40.0U	3000
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	88500	-	93200	-	90100	-	15000U	-	7500U	19000
Sulfide	ug/L	N	NS	-	-	-	600U	-	600U	-	700U	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146
			Sample Date	11/11/2003	08/11/2004	03/15/2005	08/30/2005	03/09/2006	09/06/2006	03/23/2007	03/05/2008	03/06/2008	02/19/2009	02/20/2009	03/24/2010	03/24/2010
			Field Sample ID	M146A4	MW146A5	M146A6X	M146A7X	M146A8X	M146A9X	M146B1X	M146B2	M146B2X	M146B3	M146B3X	M146B4	M146B4X
			SDG	RFE92	RFF19	RFF43	957459	981013	1004466	1030794	1080472	1080472	1133129	1133129	RFS35	RFS35
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	7.53	-	5.68	-	5.61	5.61
DO	mg/L	N	NS	-	-	-	-	-	-	-	4.31	-	7.76	-	4.83	4.83
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-54	-	137	-	-29	-29
pH	pH Units	N	NS	-	-	-	-	-	-	-	7.23	-	7.26	-	6.43	6.43
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	-	-	-	-	-	-	29.1	-	10.0U	-	7.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	2J	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	316	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	540	40U	2400	3200	1500	2000	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-146	MW-148	MW-148	MW-148	MW-148	MW-148
			Sample Date	03/22/2011	03/22/2011	04/30/2012	05/01/2012	06/26/2013	06/27/2013	02/14/2018	02/15/2018	10/02/2002	10/02/2002	01/21/2003	01/22/2003	06/17/2003
			Field Sample ID	M146B5	M146B5X	M146B6	M146B6X	M146B7	M146B7X	M146C3	M146C3X	M148A1X	M148A1Y	M148A2X	M148A2Y	M148A3
			SDG	RFT01	RFT01	RFU50	RFU50	RFB21	RFB21	CS647	CS647	RFE24	RFE24	RFE58	RFE58	RFE77
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.13	9.13	1.93	1.77	0.59	0.15	-	-	-	-	-	-	-
DO	mg/L	N	NS	7.53	7.53	10.42	8.46	8.14	8.17	-	-	6.07	6.07	3.47	-	1.58
ORP	millivolts	N	NS	87	87	-50	-115	-160	-304	-	-	-65	-65	28	-	-42
pH	pH Units	N	NS	6.87	6.87	7.04	6.73	6.80	6.75	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	335000	-	410U	351000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	410U	-	410U	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	86000	-	-	-	335000	-	410U	351000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	700U	-	1700U	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	86000	-	17500	-	-	-	-	-
Arsenic	ug/L	N	3	9.8U	-	5.9J	-	4.9	-	1.1J	-	4.9U	-	7.4J	-	4.9U
Arsenic	ug/L	Y	3	-	-	-	-	3.7	-	0.72U	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	7	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	-	1250	-	2210	-	3050	-	1820	-	3060
Iron	ug/L	Y	300	-	-	-	-	525	-	1030	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	63J	-	430	-	40U	-	40.0U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	2500U	-	1200J	-	141000	-	15000U	120000
Sulfide	ug/L	N	NS	-	-	-	-	-	600U	-	700U	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148
			Sample Date	10/30/2003	11/03/2003	08/12/2004	08/12/2004	03/17/2005	09/01/2005	03/09/2006	09/06/2006	03/21/2007	03/05/2008	03/06/2008	04/09/2009	04/09/2009
			Field Sample ID	M148A4	M148A4A	M148A5	MW148A5	M148A6X	M148A7X	M148A8X	M148A9X	M148B1X	M148B2	M148B2X	M148B4	M148B4X
			SDG	RFE91	RFE91	RFF19	RFF20	RFF44	957808	981013	1004466	1030299	1080472	1080472	1139911	1139911
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	7.43	-	7.56	7.56
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	2.71	-	0	0
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	48	-	131	131
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	7.34	-	5.58	5.58
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	-	-	-	-	-	-	-	-	10.0U	-	20.3	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	950	-	-	7570	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	40U	-	40U	61J	40U	40U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-148	MW-149	MW-149	MW-149
			Sample Date	03/31/2010	03/31/2010	03/21/2011	03/22/2011	05/02/2012	05/03/2012	06/24/2013	06/25/2013	02/21/2018	02/22/2018	10/15/2002	10/15/2002	01/29/2003
			Field Sample ID	M148B5	M148B5X	M148B6	M148B6X	M148B7	M148B7X	M148B8	M148B8X	M148C7	M148C7X	M149A1X	M149A1Y	M149A2X
			SDG	RFS36	RFS36	RFT01	RFT01	RFU52	RFU52	RFB18	RFB18	CS651	CS651	RFE31	RFE31	RFE61
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.13	7.13	0.57	0	2.4	2.06	1.03	0.08	-	-	-	-	-
DO	mg/L	N	NS	5.28	5.28	13.81	8.94	15.98	9.76	13.79	9.97	-	-	1	1	0.88
ORP	millivolts	N	NS	132	132	29	83	-1	0	-119	-242	-	-	-85	-85	-90
pH	pH Units	N	NS	6.84	6.84	7.04	6.71	7.32	7.01	6.64	7.00	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	311000	-	281000	-	807000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	700U	-	1700U	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	311000	-	281000	-	-	-
Arsenic	ug/L	N	3	7.2U	-	9.8U	-	5.1U	-	0.57J	-	2.5	-	41.1	-	28.1
Arsenic	ug/L	Y	3	-	-	-	-	-	-	0.45J	-	3.9	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	9	-
Iron	ug/L	N	300	-	-	389	-	-	-	165J	-	1570	-	58800	-	55000
Iron	ug/L	Y	300	-	-	55.4J	-	-	-	43.0U	-	3010	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	40U	-	48J	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	14500	-	26400	-	30000U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	600U	-	700U	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149
			Sample Date	01/29/2003	10/29/2003	08/30/2004	04/04/2005	04/05/2005	09/06/2005	09/07/2005	03/29/2006	03/30/2006	09/13/2006	04/12/2007	04/13/2007	09/17/2007
			Field Sample ID	M149A2Y	M149A4	M149A5	M149A6	M149A6X	M149A7	M149A7X	M149A8	M149A8X	M149A9	M149B1	M149B1X	M149B2
			SDG	RFE61	RFE91	RFF22	RFF47	RFF47	958318	958318	983761	983761	1005725	1033684	1033684	1056766
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	6.19	-	-	7.01	-	-	-	-	6.24	-	-
DO	mg/L	N	NS	0.88	-	1.27	-	-	2.48	-	-	-	-	0	-	-
ORP	millivolts	N	NS	-90	-	-116	-	-	-120	-	-	-	-	-136	-	-
pH	pH Units	N	NS	-	-	6.36	-	-	6.21	-	-	-	-	5.80	-	-
Alkalinity to pH 4.5	ug/L	N	NS	990J	-	949000	-	264000	-	771000	-	654000	392000	-	632000	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	410U	-	410U	-	460U	-	460U	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	990J	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	39.0	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	8	5	5U	-	200	-	0.7J	-	10	36	-	28	-
Iron	ug/L	N	300	-	49200	48400	39200	-	50300	-	48500	-	52.2U	80600	-	54800
Iron	ug/L	Y	300	-	-	48700	49.5U	-	47600	-	47300	-	50800J	84400	-	53100
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	200U	40U	-	40U	-	400U	-	40U	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	6000U	-	6000U	-	3000U	-	6000U	-	6000U	4000J	-	15300J	-
Sulfide	ug/L	N	NS	-	-	530U	-	530U	-	530U	-	530U	530U	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149
			Sample Date	09/18/2007	03/26/2008	03/26/2008	03/27/2008	09/29/2008	09/30/2008	03/05/2009	03/06/2009	09/23/2009	09/24/2009	02/17/2010	02/18/2010	08/18/2010
			Field Sample ID	M149B2X	D0326081	M149B3	M149B3X	M149B4	M149B4X	M149B5	M149B5X	M149B6	M149B6X	M149B7	M149B7X	M149B8
			SDG	1056766	1083600	1083600	1083600	1112628	1112628	1135061	1135061	1163395	1163395	1183032	1183032	RFS64
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	6.11	6.11	-	6.02	-	6.82	-	6.35	-	6.48	-	6.44
DO	mg/L	N	NS	-	1.18	1.18	-	0	-	0	-	5.81	-	3.98	-	4.76
ORP	millivolts	N	NS	-	-116	-116	-	-93	-	-84	-	-144	-	-92	-	-110
pH	pH Units	N	NS	-	6.74	6.74	-	6.47	-	6.38	-	6.37	-	6.30	-	6.35
Alkalinity to pH 4.5	ug/L	N	NS	777000	-	-	426000	-	556000	-	427000	-	636000	-	375000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	2J	-	-	5U	-	3J	-	16	-	1J	-	4J	-
Iron	ug/L	N	300	-	46200	46500	-	25600	-	57500	-	50900	-	2230	-	49600
Iron	ug/L	Y	300	-	46200	45700	-	23400	-	57700	-	50900	-	1570	-	50400
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	400U	-	-	200U	-	40U	-	800U	-	40U	-	200U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	10000U	-	-	10000U	-	5000U	-	10000U	-	2500U	-	4300J	-
Sulfide	ug/L	N	NS	530U	-	-	530U	-	530U	-	530U	-	530U	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-149	MW-150	MW-150	MW-150	MW-150
			Sample Date	08/19/2010	04/06/2011	04/06/2011	04/07/2011	04/07/2011	06/14/2012	05/31/2013	09/24/2014	02/22/2018	10/08/2002	10/08/2002	10/15/2002	10/15/2002
			Field Sample ID	M149B8X	M149B9	D0406111	D0407111	M149B9X	M149C1X	M149C2X	M149C3X	M149C9	M150A1X	M150A1Y	M150A2X	M150A2Y
			SDG	RFS64	RFT05	RFT05	RFT05	RFT05	RFU83	RFZ73	CS160	CS651	RFE26	RFE26	RFE31	RFE31
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7	1.72	1.72	9.91	9.91	0	0.78	0.41	-	-	-	-	-
DO	mg/L	N	NS	0	11.96	11.96	6.54	6.54	6.11	6.75	7	-	1.56	1.56	0.92	0.92
ORP	millivolts	N	NS	-145	-35	-35	13	13	-51	-117	-244	-	-66	-66	-80	-80
pH	pH Units	N	NS	6.24	6.30	6.30	8.06	8.06	6.62	6.26	6.33	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	777000	-	-	423000	320000	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	-	460U	460U	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	80800	-	28500
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	4.9U	-	5.5J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	-	27	26	16	2J	2	3	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	54600	55300	-	-	-	-	-	-	30900	-	31500	-
Iron	ug/L	Y	300	-	55500	55100	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	40U	40U	-	-	-	-	-	350	-	1760
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	2500U	-	-	5000U	5000U	-	-	-	-	-	79000	-	92000
Sulfide	ug/L	N	NS	530U	-	-	530U	530U	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-150	MW-150	MW-150	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151
			Sample Date	01/27/2003	01/27/2003	11/17/2003	10/08/2002	10/08/2002	01/27/2003	10/20/2003	09/08/2004	03/23/2005	09/13/2005	03/23/2006	09/19/2006	04/24/2007
			Field Sample ID	M150A3X	M150A3Y	M150A4	M151A1X	M151A1Y	M151A2	M151A4	M151A5	M151A6	M151A7	M151A8	M151A9	M151B1
			SDG	RFE61	RFE61	RFE93	RFE26	RFE26	RFE61	RFE90	RFF23	RFF44	959069	982888	1006278	1035058
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	1.75	1.75	-	1.35	1.35	1.13	-	-	-	-	-	-	-
ORP	millivolts	N	NS	72	72	-	-88	-88	-80	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	410U	-	-	-	-	670J	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	-	-	-	410U	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	410U	-	-	-	783000	670J	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	4.9U	6.0J	7.3J	-	4.9U	19.0	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	-	9790	30700	25800	-	13400	18700	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	40U	40U	40U	40U	40U	40U	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	50000U	-	-	-	7500U	1500U	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151
			Sample Date	09/11/2007	04/09/2008	04/10/2008	09/18/2008	09/18/2008	03/13/2009	09/23/2009	03/19/2010	08/18/2010	04/28/2011	06/20/2012	07/11/2013	08/16/2013
			Field Sample ID	M151B2	M151B3	M151B3X	M151B4	M151B4X	M151B5X	M151B6X	M151B7X	M151B8X	M151B9X	M151C1X	M151C2X	M151C2
			SDG	1055613	1085976	1085976	1110903	1110903	1136060	1163168	RFS34	RFS64	RFT14	RFU86	RFB36	CP076
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	7.39	-	-	-	-	-	-	7.92	3.01	-	0.3	0.72
DO	mg/L	N	NS	-	0.25	-	-	-	-	-	-	0.12	0	-	7.04	8.79
ORP	millivolts	N	NS	-	-150	-	-	-	-	-	-	-171	0	-	-223	-121
pH	pH Units	N	NS	-	6.07	-	-	-	-	-	-	10.45	0.00	-	6.74	6.83
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	371000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	371000
Arsenic	ug/L	N	3	-	33.6	-	21.9	-	-	-	-	-	-	-	-	67.7
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	60.7
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	47700
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	11000
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	1500U
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	600U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151
			Sample Date	10/30/2013	10/30/2013	01/09/2014	01/10/2014	01/10/2014	08/15/2014	08/15/2014	08/15/2014	11/06/2014	11/10/2014	12/23/2014	01/21/2015	03/10/2015
			Field Sample ID	M151C3	M151C3X	M151C4X	M151C4	M151C4	M151C5	M151C5	M151C5X	M151C6X	M151C7	M151D2	M151D3	M151D4
			SDG	CP173	CP173	CP252	CP254	CP255	CP464	CP465	CP464	CS182	CP585	CP631	CP650	CP663
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.18	0.18	13.06	-	-	0.66	0.66	0.66	0.01	0.38	9.24	11.06	1.39
DO	mg/L	N	NS	11.91	11.91	9.2	-	-	8.45	8.45	8.45	7.34	8.14	8.05	8.01	8.97
ORP	millivolts	N	NS	-105	-105	73.4	-	-	-100.6	-100.6	-100.6	-111	-75.8	63.2	101	68.5
pH	pH Units	N	NS	6.60	6.60	7.11	-	-	6.60	6.60	6.60	6.71	6.75	7.20	7.13	6.51
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	43300	48000	47900
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	355000	-	-	43300	48000	47900
Arsenic	ug/L	N	3	42.1	-	-	4.3	-	68.3	-	-	-	37.2	4.0	3.4	3.0
Arsenic	ug/L	Y	3	39.4	-	-	-	2.1U	-	65.7	-	-	35.4	1.8UJ	2.3	3.0
Benzene	ug/L	N	1	-	0.5U	0.5U	-	-	-	-	-	0.5U	-	-	-	-
Iron	ug/L	N	300	51400	-	-	1970	-	21500	-	-	-	44400	1610	1890	440
Iron	ug/L	Y	300	51400	-	-	-	65.8J	-	21100	-	-	41900	139J	224	225
Methane	ug/L	N	NS	-	-	-	-	-	-	-	9500	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	250U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	1500U	15900J	-	-	-	-	4100J	-	1500U	10400	9100	7200
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	600U	600U	600U	680U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	54U	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-151	MW-151	MW-151	MW-151	MW-151	MW-151	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152
			Sample Date	07/01/2015	09/22/2017	10/25/2017	02/16/2018	02/16/2018	03/28/2018	10/07/2002	10/08/2002	01/22/2003	01/23/2003	06/18/2003	11/20/2003	11/21/2003
			Field Sample ID	M151D5	M151E1X	M151E2	M151E3	M151E3X	M151E4	M152A1Y	M152A1X	M152A2X	M152A2Y	M152A3	M152A4	M152A4A
			SDG	CP766	CQ784	CQ839	CS648	CS648	CR011	RFE26	RFE26	RFE58	RFE58	RFE77	RFE93	RFE93
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	1.78	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	10.6	-	-	-	-	2.14	-	1.11	-	1.83	-	-
ORP	millivolts	N	NS	-	-135.9	-	-	-	-	-65	-	-99	-	-98	-	-
pH	pH Units	N	NS	-	7.18	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	410U	463000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	410U	410U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	35000	-	1250000	-	81600	46200	-	364000	-	410U	463000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	1700U	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	35000	-	1250000	-	81600	46200	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	6.4	-	37.8	3.5	-	2.2	26.6	-	24.0	-	16.7	11.9	-
Arsenic	ug/L	Y	3	4.0	-	41	3.9	-	1.7J	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	1U	-	0.5U	-	-	0.5U	-	0.5U	0.5U	-	0.5U
Iron	ug/L	N	300	1770	-	29200	971	-	368	40700	-	75900	-	66100	28200	-
Iron	ug/L	Y	300	33.4U	-	29000	2720	-	80.5U	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	930	-	250UJ	-	1100	250U	-	40U	-	40.0U	2000U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	13900	3200000	2230000J	-	92700	34300	-	59000	-	7500U	15000U	-	-
Sulfide	ug/L	N	NS	680U	-	700U	-	700U	700U	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152
			Sample Date	08/12/2004	04/11/2005	08/17/2005	08/18/2005	11/16/2005	11/17/2005	03/13/2006	03/14/2006	07/12/2006	07/13/2006	10/26/2006	10/27/2006	04/19/2007
			Field Sample ID	MW152A5	M152A6	M152A7	M152A7X	M152A8	M152A8X	M152A9	M152A9X	M152B1	M152B1X	M152B2	M152B2X	M152B3
			SDG	RFF20	RFF48	956018	956018	967951	967951	981574	981574	997280	997280	1011912	1011912	1034667
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	5.5	6	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	2.49	0	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-57	-49	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	6.37	6.87	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	550000	-	-	517000	-	467000	-	362000	-	424000	-	418000	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	-	410U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	13900	15400	13500	-	16500	-	70500	-	15500J	-	9260J	-	52000
Iron	ug/L	Y	300	3300	14800	5480	-	2360	-	71400	-	3650J	-	2280J	-	46500
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	200U	-	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	6000U	-	-	150000U	-	30000U	-	2600J	-	3000U	-	5100J	-
Sulfide	ug/L	N	NS	530U	-	-	21200U	-	1100U	-	530U	-	530U	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152
			Sample Date	04/20/2007	09/06/2007	09/07/2007	03/10/2008	03/11/2008	09/02/2008	09/03/2008	03/04/2009	03/04/2009	09/28/2009	09/29/2009	04/07/2010	04/08/2010
			Field Sample ID	M152B3X	M152B4	M152B4X	M152B5	M152B5X	M152B6	M152B6X	M152B7	M152B7X	M152B8	M152B8X	M152B9	M152B9X
			SDG	1034667	1055139	1055139	1081108	1081108	1108227	1108227	1134619	1134619	1163942	1163942	RFS37	RFS37
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	5.78	-	5.68	-	6.01	6.01	5.38	-	5.48	-
DO	mg/L	N	NS	-	-	-	0	-	0	-	0	0	4.93	-	0	-
ORP	millivolts	N	NS	-	-	-	-73	-	23	-	107	107	46	-	-109	-
pH	pH Units	N	NS	-	-	-	6.78	-	6.52	-	6.92	6.92	6.05	-	6.20	-
Alkalinity to pH 4.5	ug/L	N	NS	481000	-	450000	-	405000	-	399000	-	425000	-	392000	-	424000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	10.0U	-	10.2U	-	10.0U	-	7.2U	-	9.4J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	5U	-	3U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	8460	-	24700	-	12200	-	11500	-	12000	-	72600	-
Iron	ug/L	Y	300	-	1870	-	15600	-	1140	-	131J	-	993	-	63200	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	400U	-	400U	-	10000U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	10000U	-	12500U	-	12500U	-	50000U	-	500000U	-	125000U	-	5000U
Sulfide	ug/L	N	NS	530U	-	10600U	-	2100U	-	530U	-	69000	-	530U	-	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-152	MW-153	MW-153	MW-153
			Sample Date	10/21/2010	10/22/2010	05/16/2011	05/17/2011	07/11/2013	07/12/2013	07/12/2013	03/18/2015	06/30/2015	10/06/2015	10/07/2002	10/07/2002	01/22/2003
			Field Sample ID	M152C1	M152C1X	M152C2	M152C2X	M152C3	D0712131	M152C3X	M152C4	M152C5	M152C6	M153A1X	M153A1Y	M153A2X
			SDG	RFS74	RFS74	RFT22	RFT22	RFB37	RFB37	RFB37	CP669	CP765	CP860	RFE26	RFE26	RFE58
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.61	12.21	3.47	11.78	1.1	0.82	0.82	3.77	-	-	-	-	-
DO	mg/L	N	NS	1.71	0	14.68	12.96	13.67	12.95	12.95	5.74	-	-	4.93	4.93	2.64
ORP	millivolts	N	NS	-60	-103	-13	60	-107	-120	-120	51.6	-	-	47	47	197
pH	pH Units	N	NS	6.45	6.05	6.57	6.26	6.68	6.43	6.43	6.51	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	486000	-	327000	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	352000	349000	-	-	-	-	12500	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	700U	700U	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	352000	349000	-	-	-	-	-	-
Arsenic	ug/L	N	3	9.8U	-	13.7J	-	15.7	-	-	1.2J	3.4	2.5	4.9U	-	4.9U
Arsenic	ug/L	Y	3	-	-	-	-	13.8	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	2J	-	0.5U	0.5U	-	-	-	-	0.5U	-
Iron	ug/L	N	300	10100	-	61100	-	45100	-	-	2140	14300	8480	1770	-	1030
Iron	ug/L	Y	300	1810	-	61200	-	43500	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	7400	8800	12000	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	50J	40U	780	250U	250U	-	94J	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	10000U	-	12500U	-	12500U	12500U	48900	53300	24300	-	61000	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	600U	600U	680U	680U	680U	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153
			Sample Date	01/22/2003	07/23/2003	11/03/2003	11/04/2003	08/19/2004	04/07/2005	08/25/2005	03/15/2006	09/19/2006	03/21/2007	09/10/2007	09/11/2007	03/10/2008
			Field Sample ID	M153A2Y	M153A3	M153A4	M153A4A	M153A5	M153A6	M153A7	M153A8	M153A9	M153B1	M153B2	M153B2X	M153B3
			SDG	RFE58	RFE83	RFE91	RFE91	RFF19	RFF47	956931	981802	1006278	1030299	1055613	1055613	1081108
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	7.03
DO	mg/L	N	NS	2.64	-	-	-	-	-	-	-	-	-	-	-	9.42
ORP	millivolts	N	NS	197	-	-	-	-	-	-	-	-	-	-	-	114
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	6.71
Alkalinity to pH 4.5	ug/L	N	NS	410U	11600	-	-	-	-	-	-	-	-	-	23200	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	410U	-	-	-	-	-	-	-	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	410U	11600	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	5.3J	4.9U	-	-	-	-	-	-	-	-	-	10.0U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	1J	-	0.5U	0.5U	0.5U	0.8J	0.5U	0.5U	0.5U	-	1J	-
Iron	ug/L	N	300	-	3820	4790	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	3470	-	8090
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	125J	-	52.2U
Nitrogen, Nitrate as N	ug/L	N	10000	40.0U	690	-	460	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	450	300	40U	600	0.040U	-	-	240	-
Sulfate (SO4)	ug/L	N	250000	15000U	131000	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	109000	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153
			Sample Date	03/11/2008	09/02/2008	09/03/2008	04/01/2009	04/02/2009	09/22/2009	09/23/2009	03/02/2010	03/02/2010	09/01/2010	09/02/2010	03/28/2011	03/29/2011
			Field Sample ID	M153B3X	M153B4	M153B4X	M153B5	M153B5X	M153B6	M153B6X	M153B7	M153B7X	M153B8	M153B8X	M153B9	M153B9X
			SDG	1081108	1108227	1108227	1138848	1138848	1163168	1163168	RFS32	RFS32	RFS65	RFS65	RFT03	RFT03
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	7.03	-	7.1	-	8.06	-	4.78	4.78	7.21	7.99	7.16	7.62
DO	mg/L	N	NS	-	0.51	-	7.03	-	7.53	-	9.04	9.04	1.72	1.65	4.64	4.35
ORP	millivolts	N	NS	-	141	-	16	-	173	-	132	132	137	129	193	2242
pH	pH Units	N	NS	-	6.32	-	5.87	-	6.07	-	6.46	6.46	6.18	6.58	6.05	6.09
Alkalinity to pH 4.5	ug/L	N	NS	37600	-	43300	-	31200	-	84500	-	42800	-	39300	-	47200
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.2U	-	10.0U	-	7.2U	-	15.6J	-	9.8U	-	9.8U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	3200	-	1340	-	788	-	13400	-	2230	-	730	-
Methane	ug/L	N	NS	-	52.2U	-	52.2U	-	52.2U	-	287	-	183J	-	52.2U	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	390	-	830	-	2200	-	1900	-	360	-	67J	-	880
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	97000	-	95600	-	94100	-	47900	-	5700J	-	67400	-	45900
Sulfide	ug/L	Y	NS	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153
			Sample Date	10/24/2011	10/25/2011	06/05/2012	06/05/2012	06/06/2012	09/04/2012	09/05/2012	07/02/2013	07/03/2013	10/03/2013	10/04/2013	06/10/2014	06/11/2014
			Field Sample ID	M153C1	M153C1X	M153C2	M153C2	M153C2X	M153C3	M153C3X	M153C4	M153C4X	M153C5	M153C5X	M153C6	M153C6X
			SDG	RFT81	RFT81	RFU79	RFV35	RFU79	RFV35	RFV35	RFB29	RFB29	CS023	CS023	CS111	CS111
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.15	7.58	5.95	5.95	7.23	6.32	7.43	6.87	7.23	8.56	7.84	4.28	7
DO	mg/L	N	NS	4.13	8.17	3.51	3.51	4.21	5.65	4.9	1.97	1.58	3.17	1.07	4.19	2.59
ORP	millivolts	N	NS	97	109	79	79	138	154	143	-98	-62	-284	-319	-120	-152
pH	pH Units	N	NS	6.68	6.62	6.78	6.78	6.44	6.46	6.26	6.18	5.83	5.84	5.64	6.54	5.86
Alkalinity to pH 4.5	ug/L	N	NS	-	109000	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	-	-	-	700U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	84300	-	53200	-	56800	-	60200
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	700U	-	-	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	93500	-	84300	-	53200	-	56800	-	60200
Arsenic	ug/L	N	3	6.9J	-	5.1U	-	-	2.7	-	11.5	-	5.9	-	7.7	-
Arsenic	ug/L	Y	3	-	-	-	2.1	-	-	-	6.5	-	3.3	-	2.7	-
Benzene	ug/L	N	1	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	1520	-	1890	-	-	722	-	4440	-	1560	-	5070	-
Methane	ug/L	N	NS	459	-	52.4J	33.3U	-	-	-	65.7J	-	43.0U	-	113J	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	190	-	-	640	-	3300	-	92J	-	40U	-	310
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	30300	-	-	24400	-	42400	-	70700	-	75800	-	50500
Sulfide	ug/L	Y	NS	-	530U	-	-	600U	-	600U	-	1200U	-	600U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-153	MW-155
			Sample Date	01/13/2015	01/14/2015	01/06/2016	01/07/2016	08/04/2016	08/05/2016	02/27/2017	02/28/2017	08/28/2017	08/29/2017	03/12/2018	03/13/2018	10/31/2002
			Field Sample ID	M153C7	M153C7X	M153C8	M153C8X	M153C9	M153C9X	M153D1	M153D1X	M153D2	M153D2X	M153D3	M153D3X	M155A1
			SDG	CS194	CS194	CS337	CS337	CS438	CS438	CS521	CS521	CS595	CS595	CS657	CS657	LNA05
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.55	7.96	-	7.42	-	7.44	-	8.75	-	7.51	-	-	-
DO	mg/L	N	NS	3.59	3.55	-	2.84	-	1.52	-	6.37	-	2.89	-	-	0
ORP	millivolts	N	NS	-53	-125	-	-36	-	-10	-	126	-	-87	-	-	0
pH	pH Units	N	NS	7.04	7.33	-	7.15	-	6.65	-	6.93	-	7.11	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	67000	-	152000	-	116000	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	1700U	-	1700U	-	1700U	-	1700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	67000	-	152000	-	116000	-	85500	-	79000	-	91800	-
Arsenic	ug/L	N	3	8.3	-	3.5	-	5.0	-	5.5	-	6.6	-	12.0	-	-
Arsenic	ug/L	Y	3	2.0	-	2.2	-	3.4	-	-	-	3.2	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	2J
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	6900	-	839	-	1100	-	3250	-	2740	-	8310	-	-
Methane	ug/L	N	NS	75.8J	-	33.3U	-	107J	-	360	-	-	-	1470	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	84J	-	1700	-	1500	-	1700	-	1800	-	1200	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	20000J	-	45600	-	57600	-	36800	-	25400	-	16800	-
Sulfide	ug/L	Y	NS	-	600U	-	680U	-	700U	-	700U	-	700U	-	700U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155
			Sample Date	02/20/2003	02/20/2003	10/16/2003	09/02/2004	04/14/2005	09/07/2005	04/04/2006	09/26/2006	03/23/2007	09/11/2007	04/09/2008	04/10/2008	09/18/2008
			Field Sample ID	M155A2X	M155A2Y	M155A4	M155A5	M155A6X	M155A7	M155A8	M155A9	M155B1	M155B2	M155B3	M155B3X	M155B4
			SDG	RFE65	RFE65	RFE90	RFF22	RFF48	958318	984270	1007507	1030794	1055613	1085976	1085976	1111172
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	6.09	-	6.31
DO	mg/L	N	NS	1	1	-	-	-	-	-	-	-	-	0	-	0
ORP	millivolts	N	NS	-83	-83	-	-	-	-	-	-	-	-	-69	-	-101
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	6.31	-	6.75
Alkalinity to pH 4.5	ug/L	N	NS	-	345000	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	345000	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	8.4J	-	19.6	-	-	-	-	-	-	-	10.0U	-	10.2U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.9J	0.5U	0.5U	0.5U	0.5U	0.5U	1J	0.5U	0.5U	-	0.5U	-
Iron	ug/L	N	300	23500	-	28400	-	-	-	-	-	-	-	18200	-	45600
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	40U	40U	550	40U	40U	710	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	18900J	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155	MW-155
			Sample Date	09/19/2008	03/24/2009	03/25/2009	09/16/2009	09/17/2009	02/05/2010	02/05/2010	08/30/2010	08/31/2010	04/14/2011	04/15/2011	06/07/2012	06/08/2012
			Field Sample ID	M155B4X	M155B5	M155B5X	M155B6	M155B6X	M155B7	M155B7X	M155B8	M155B8X	M155B9	M155B9X	M155C1	M155C1X
			SDG	1111172	1137663	1137663	1162355	1162355	1181719	1181719	RFS65	RFS65	RFT09	RFT09	RFU81	RFU81
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	6.99	-	6.14	-	6.48	6.48	6.65	6.51	1.36	1.46	1.24	0.06
DO	mg/L	N	NS	-	0	-	5.51	-	0	0	1	0.16	6.39	6.15	6.57	5.92
ORP	millivolts	N	NS	-	-54	-	-99	-	-4	-4	-115	-132	-51	-20	67	-7
pH	pH Units	N	NS	-	6.82	-	5.63	-	6.46	6.46	6.74	6.47	6.79	6.67	6.56	6.64
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	-	7.2U	-	7.2U	-	9.8U	-	9.8U	-	5.1U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	3U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	13500	-	23600	-	15500	-	29100	-	2690	-	4410	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156
			Sample Date	10/31/2002	02/20/2003	02/20/2003	10/16/2003	09/01/2004	04/13/2005	04/14/2005	09/06/2005	09/07/2005	04/03/2006	04/04/2006	09/25/2006	09/26/2006
			Field Sample ID	M156A1	M156A2X	M156A2Y	M156A4	M156A5	M156A6	M156A6X	M156A7	M156A7X	M156A8	M156A8X	M156A9	M156A9X
			SDG	LNA05	RFE65	RFE65	RFE90	RFF22	RFF48	RFF48	958318	958318	984270	984270	1007507	1007507
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	6.71	-	-	7.34	-	-	-	-	-
DO	mg/L	N	NS	0	0.81	0.81	-	1.05	-	-	3.02	-	-	-	-	-
ORP	millivolts	N	NS	0	-9	-9	-	-56	-	-	-69	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	6.42	-	-	6.32	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	164000	-	291000	-	265000	-	293000	-	268000	-	404000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	410U	-	410U	-	410U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	164000	-	-	-	-	-	-	-	268000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	14	-	6.4J	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	4J	-	2J	4J	1J	-	1J	-	3J	-	2J	-	3J
Iron	ug/L	N	300	-	19900	-	11500	8580	16300	-	16100	-	5610	-	6310J	-
Iron	ug/L	Y	300	-	-	-	-	5860	13000	-	12200	-	3840	-	4120J	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	800U	110	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	480000	-	34800	-	18300	-	18100J	-	134000	-	24200
Sulfide	ug/L	N	NS	-	-	-	-	530U	-	530U	-	530U	-	530U	-	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156
			Sample Date	03/29/2007	03/30/2007	09/10/2007	09/11/2007	04/09/2008	04/10/2008	09/18/2008	09/19/2008	03/24/2009	03/25/2009	09/16/2009	09/17/2009	02/05/2010
			Field Sample ID	M156B1	M156B1X	M156B2	M156B2X	M156B3	M156B3X	M156B4	M156B4X	M156B5	M156B5X	M156B6	M156B6X	M156B7
			SDG	1031765	1031765	1055613	1055613	1085976	1085976	1111172	1111172	1137663	1137663	1162355	1162355	1181719
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	6.56	-	6.65	-	-	-	6.68	-	7.06
DO	mg/L	N	NS	-	-	-	-	0.18	-	0	-	-	-	5.4	-	0
ORP	millivolts	N	NS	-	-	-	-	-30	-	-66	-	-	-	-32	-	-50
pH	pH Units	N	NS	-	-	-	-	6.27	-	6.87	-	-	-	5.59	-	6.60
Alkalinity to pH 4.5	ug/L	N	NS	-	391000	-	404000	-	300000	-	544000	-	391000	-	378000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	2J	-	1J	-	0.5J	-
Iron	ug/L	N	300	6440	-	3640	-	6740	-	1700	-	6850	-	2510	-	16800
Iron	ug/L	Y	300	6370	-	2040	-	6200	-	1480	-	6590	-	602	-	16500
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	2000U	-	40U	-	40U	-	110	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	53400	-	5600	-	211000	-	60900	-	130000	-	327000	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156	MW-156R	MW-156R	MW-157	MW-157	MW-157	MW-157	MW-157
			Sample Date	02/05/2010	08/30/2010	08/31/2010	04/14/2011	04/15/2011	06/08/2012	11/04/2015	11/05/2015	05/15/2003	11/24/2003	11/25/2003	08/25/2004	04/13/2005
			Field Sample ID	M156B7X	M156B8	M156B8X	M156B9	M156B9X	M156C1X	M156RA1	M156A1X	M157A1	M157A3	M157A3A	M157A4	M157A5
			SDG	1181719	RFS65	RFS65	RFT09	RFT09	RFU81	CS309	CS309	RFE74	RFE93	RFE93	RFF21	RFF48
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.06	7.29	7.49	-	-	0.29	1.88	2.72	-	-	-	4.67	-
DO	mg/L	N	NS	0	2.7	0	-	-	6.62	4.65	4.68	-	-	-	0.98	-
ORP	millivolts	N	NS	-50	-164	-121	-	-	9	-124	-132	-	-	-	162	-
pH	pH Units	N	NS	6.60	6.94	6.50	-	-	6.69	6.53	6.53	-	-	-	5.90	-
Alkalinity to pH 4.5	ug/L	N	NS	483000	-	398000	-	440000	-	-	-	8500	-	-	4200	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	-	-	410U	-	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	8500	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	11.2	-	4.9U	4.9U	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1J	-	0.5U	-	0.5U	0.5U	-	0.5U	4J	-	0.5U	2J	-
Iron	ug/L	N	300	-	5630	-	18300	-	-	18600	-	1020	1130	-	583	529
Iron	ug/L	Y	300	-	5840	-	18100	-	-	-	-	-	-	-	91.7J	295
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	170	-	-	-	3000	-	220	2600	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	84100	-	169000	-	67700	-	-	-	87200	-	-	94600	-
Sulfide	ug/L	N	NS	530U	-	1100J	-	530U	-	-	-	-	-	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157
			Sample Date	04/14/2005	09/14/2005	09/15/2005	04/05/2006	04/06/2006	09/25/2006	09/26/2006	04/25/2007	04/26/2007	03/24/2008	03/25/2008	03/26/2009	03/27/2009
			Field Sample ID	M157A5X	M157A6	M157A6X	M157A7	M157A7X	M157A8	M157A8X	M157A9	M157A9X	M157B1	M157B1X	M157B2	M157B2X
			SDG	RFF48	959422	959422	984700	984700	1007507	1007507	1035529	1035529	1083150	1083150	1138048	1138048
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	8	-	-	-	-	-	5.07	-	5.15	-	-	-
DO	mg/L	N	NS	-	0.01	-	-	-	-	-	1.44	-	0	-	-	-
ORP	millivolts	N	NS	-	90	-	-	-	-	-	158	-	230	-	-	-
pH	pH Units	N	NS	-	4.37	-	-	-	-	-	4.99	-	2.68	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	410U	-	45900	-	1500J	-	460U	-	460U	-	1000J	-	4600
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1J	-	4J	-	0.5U	-	2J	-	0.6J	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	7720	-	329	-	145J	-	322	-	202	-	1520	-
Iron	ug/L	Y	300	-	7110	-	200J	-	54.4J	-	52.2U	-	52.2U	-	1260	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	5300	-	40U	-	3900	-	4300	-	5900	-	4300	-	430
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	68900	-	93900	-	78000	-	66700	-	64200	-	70100	-	75500
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-157	MW-171	MW-171	MW-171	MW-171	MW-171	MW-171
			Sample Date	04/12/2010	04/13/2010	12/09/2011	06/27/2012	07/02/2013	09/17/2014	03/13/2018	04/15/2003	04/15/2003	11/18/2003	03/29/2005	08/24/2005	04/06/2006
			Field Sample ID	M157B3	M157B3X	M157B4X	M157B5X	M157B6X	M157B7X	M157C2X	M171A1X	M171A1Y	M171A4	M171A6	M171A7	M171A8
			SDG	RFS38	RFS38	RFT92	RFU93	RFB27	CS157	CS657	RFE71	RFE71	RFE93	RFF46	956750	984700
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.28	5.97	5.08	-	3.07	-0.05	-	-	-	-	-	-	-
DO	mg/L	N	NS	2.65	4.64	4.61	-	6.02	9.18	-	1.5	1.5	-	-	-	-
ORP	millivolts	N	NS	361	340	305	-	113	153	-	-35	-35	-	-	-	-
pH	pH Units	N	NS	4.51	4.27	4.88	-	5.28	5.32	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	830J	-	-	-	-	-	-	95800	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	-	-	-	-	-	410U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	95800	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	4.9U	-	11.1	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.9J	0.6J	3J	0.7J	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	147J	-	-	-	-	-	-	6600	-	15000	-	-	-
Iron	ug/L	Y	300	52.2U	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	3300	-	-	-	-	-	-	40U	40U	40U	40U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	57000	-	-	-	-	-	-	39000	-	-	-	-
Sulfide	ug/L	N	NS	-	530U	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-171	MW-171	MW-171	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172
			Sample Date	10/10/2006	04/18/2007	09/13/2007	04/09/2003	04/09/2003	10/23/2003	10/24/2003	08/17/2004	03/17/2005	09/01/2005	03/15/2006	09/06/2006	03/23/2007
			Field Sample ID	M171A9	M171B1	M171B2	M172A1X	M172A1Y	M172A2	M172A2A	M172A3	M172A4	M172A5	M172A6	M172A7	M172A8
			SDG	1009241	1034314	1056329	RFE70	RFE70	RFE90	RFE90	RFF19	RFF44	957808	981802	1004466	1030794
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	1.69	1.69	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	59	59	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	380000	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	410U	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	380000	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	4.9U	-	12.8	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	2900	-	29500	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	40U	-	40U	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	63100	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172
			Sample Date	09/07/2007	03/19/2008	03/20/2008	09/08/2008	09/09/2008	04/01/2009	04/02/2009	10/12/2009	10/13/2009	03/31/2010	03/31/2010	08/16/2010	08/17/2010
			Field Sample ID	M172A9	M172B1	M172B1X	M172B2	M172B2X	M172B3	M172B3X	M172B4	M172B4X	M172B5	M172B5X	M172B6	M172B6X
			SDG	1055139	1082600	1082600	1109174	1109174	1138848	1138848	1166229	1166229	RFS36	RFS36	RFS64	RFS64
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	9.03	-	7.92	-	8.61	-	8.41	-	7.47	7.47	8.39	8.77
DO	mg/L	N	NS	-	0	-	0	-	1.5	-	0.1	-	5.59	5.59	1.74	10.99
ORP	millivolts	N	NS	-	-136	-	-193	-	-158	-	-199	-	-118	-118	-141	-188
pH	pH Units	N	NS	-	7.36	-	7.01	-	6.12	-	6.60	-	6.60	6.60	9.22	6.56
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	-	317	-	13.2J	-	20.6	-	7.2U	-	14.3J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	28200	-	639000	-	41200	-	44800	-	10200	-	36700	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172
			Sample Date	05/18/2011	05/19/2011	09/21/2011	09/22/2011	06/19/2012	06/20/2012	09/06/2012	09/07/2012	07/10/2013	07/11/2013	06/19/2014	06/20/2014	11/04/2014
			Field Sample ID	M172B7	M172B7X	M172B8	M172B8X	M172B9	M172B9X	M172C1	M172C1X	M172C2	M172C2X	M172C4	M172C4X	D1104141
			SDG	RFT23	RFT23	RFT71	RFT71	RFU86	RFU86	RFV38	RFV38	RFB36	RFB36	CS115	CS115	CS181
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	13.72	12.65	1.63	0.66	1.01	0	6.84	1.83	2.55	0.2	1.92	0.13	2.55
DO	mg/L	N	NS	14	7.8	12.03	7.98	13.55	8.35	13.59	8.93	13.57	8.18	13.64	7.88	13.86
ORP	millivolts	N	NS	-23	-55	-68	-89	-97	-169	-124	-77	-100	-153	-73	-155	-149
pH	pH Units	N	NS	7.12	6.83	7.03	6.70	10.17	7.20	7.16	6.53	6.83	6.71	6.78	6.83	7.01
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	700U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	339000	-	271000	-	338000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	339000	-	271000	-	338000	-
Arsenic	ug/L	N	3	9.8U	-	9.2J	-	6.6J	-	10.1	-	0.48J	-	4.4	-	8.5
Arsenic	ug/L	Y	3	-	-	-	-	-	-	9.7	-	0.60J	-	0.82U	-	6.3
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	13600	-	19000	-	15900	-	19900	-	3530	-	16300	-	20700
Iron	ug/L	Y	300	-	-	-	-	-	-	19100	-	2940	-	1580	-	16900
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	5000U	-	12500U	-	5000U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	600U	-	600U	-	600U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-172	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173
			Sample Date	11/04/2014	11/05/2014	11/05/2014	07/09/2015	07/10/2015	09/12/2017	09/13/2017	04/28/2003	06/30/2003	11/17/2003	08/11/2004	03/15/2005	08/30/2005
			Field Sample ID	M172C5	D1105141	M172C5X	M172C6	M172C6X	M172D1	M172D1X	M173A1	M173A2	M173A3	MW173A4	M173A5X	M173A6X
			SDG	CS181	CS181	CS181	CS259	CS259	CS602	CS602		RFE79	RFE93	RFF19	RFF43	957459
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.55	0	0	1.63	2.39	2.02	2.47	-	-	-	-	-	-
DO	mg/L	N	NS	13.86	8.72	8.72	NM	13.62	7.53	13.19	2.05	1.86	-	-	-	-
ORP	millivolts	N	NS	-149	-114	-114	26	-106	-23	-7	-16	68	-	-	-	-
pH	pH Units	N	NS	7.01	6.99	6.99	6.76	6.69	6.98	7.07	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	283000	280000	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	410	410U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	321000	331000	-	311000	-	427000	283000	280000	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	700U	-	700U	-	1700U	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	321000	331000	-	311000	-	427000	-	-	-	-	-	-
Arsenic	ug/L	N	3	8.4	-	-	1.1J	-	1.6J	-	13.6	8.8J	15.3	-	-	-
Arsenic	ug/L	Y	3	5.9	-	-	0.82U	-	1.2J	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5	0.5U	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	20600	-	-	976	-	1810	-	5690	4070	4670	-	-	-
Iron	ug/L	Y	300	17500	-	-	128J	-	151J	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	40U	-	40U	-	40U	40	40U	40U	40U	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	5000U	10000U	-	5000U	-	10000U	37900	79700	-	-	-	-
Sulfide	ug/L	N	NS	-	600U	600U	-	680U	-	700U	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173	MW-173
			Sample Date	03/09/2006	09/06/2006	03/15/2007	03/05/2008	03/06/2008	02/19/2009	02/20/2009	03/24/2010	03/24/2010	10/04/2011	10/05/2011	06/26/2012	06/27/2012
			Field Sample ID	M173A7X	M173A8X	M173A9X	M173B1	M173B1X	M173B2	M173B2X	M173B3	M173B3X	M173B5	M173B5X	M173B6	M173B6X
			SDG	981013	1004466	1029582	1080472	1080472	1133129	1133129	RFS35	RFS35	RFT75	RFT75	RFU93	RFU93
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	10.51	-	10.7	-	6.51	6.51	3.31	0	1.17	0.07
DO	mg/L	N	NS	-	-	-	0.53	-	0.96	-	4.87	4.87	9.43	7.43	7.92	9.55
ORP	millivolts	N	NS	-	-	-	160	-	171	-	-81	-81	4	-110	-115	-27
pH	pH Units	N	NS	-	-	-	6.72	-	6.86	-	6.56	6.56	6.67	6.63	7.82	8.01
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	10.0U	-	10.0U	-	7.2U	-	27.9	-	6.8U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	40U	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-173	MW-173	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174
			Sample Date	05/09/2013	05/10/2013	04/14/2003	04/14/2003	07/21/2003	10/22/2003	08/19/2004	04/07/2005	08/23/2005	03/21/2006	09/12/2006	03/28/2007	03/26/2008
			Field Sample ID	M173B7	M173B7X	M174A1X	M174A1Y	M174A2	M174A3	M174A4	M174A5	M174A6	M174A7	M174A8	M174A9	M174B1
			SDG	RFZ36	RFZ36	RFE71	RFE71	RFE83	RFE90	RFF19	RFF47	956523	982474	1005262	1031345	1083600
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.31	0.08	-	-	-	-	-	-	-	-	-	-	2.46
DO	mg/L	N	NS	9.71	9.75	1.24	1.24	0	-	-	-	-	-	-	-	1.65
ORP	millivolts	N	NS	-152	-161	-13	-13	346	-	-	-	-	-	-	-	147
pH	pH Units	N	NS	6.53	6.71	-	-	-	-	-	-	-	-	-	-	7.10
Alkalinity to pH 4.5	ug/L	N	NS	-	-	547000	-	353000	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	410U	-	410U	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	372000	547000	-	353000	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	372000	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	1.8J	-	-	12	7.2J	4.9U	-	-	-	-	-	-	10.0U
Arsenic	ug/L	Y	3	1.4J	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Iron	ug/L	N	300	13100	-	-	4800	2970	3060	-	-	-	-	-	-	-
Iron	ug/L	Y	300	10500	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	45J	40U	-	40U	40U	40U	40U	40U	40U	230	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	47200	55500	-	70100	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	600U	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174	MW-174	MW-175	MW-175	MW-175
			Sample Date	03/27/2008	03/27/2008	03/12/2009	03/13/2009	04/12/2010	04/13/2010	05/16/2011	05/17/2011	06/05/2012	06/06/2012	04/15/2003	04/15/2003	11/13/2003
			Field Sample ID	D0327081	M174B1X	M174B2	M174B2X	M174B3	M174B3X	M174B4	M174B4X	M174B5	M174B5X	M175A1X	M175A1Y	M175A3
			SDG	1083600	1083600	1136060	1136060	RFS38	RFS38	RFT22	RFT22	RFU79	RFU79	RFE71	RFE71	RFE92
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	2.22	-	1.43	1.62	5.77	15.82	1.16	2.65	-	-	-
DO	mg/L	N	NS	-	-	0	-	1.85	1.45	8.15	2.04	10.4	1.4	1.42	1.42	-
ORP	millivolts	N	NS	-	-	-52	-	111	150	190	88	-47	20	157	157	-
pH	pH Units	N	NS	-	-	6.79	-	6.29	6.19	6.75	6.73	7.22	6.82	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	33600	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	33600	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	10.0U	-	7.2U	-	9.8U	-	5.1U	-	4.9U	-	4.9U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	-	0.5U	-	0.7J	-	0.5U	-	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	2300	-	521
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	65J	720
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	29500	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-175	MW-175	MW-175	MW-175	MW-175	MW-175	MW-175	MW-175	MW-178	MW-178	MW-178	MW-178	MW-178
			Sample Date	09/01/2004	09/01/2004	03/29/2005	08/24/2005	04/06/2006	10/10/2006	04/18/2007	09/13/2007	05/09/2003	10/27/2003	11/27/2007	11/28/2007	03/24/2008
			Field Sample ID	M171A5	M175A4	M175A5	M175A6	M175A7	M175A8	M175A9	M175B1	M178A1	M178A2	M178A3	M178A3X	M178A4
			SDG	RFF22	RFF22	RFF46	956750	984700	1009241	1034314	1056329	RFE74	RFE91	1067242	1067242	1083150
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	8.28
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	2.67	-	-	-	0
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-51	-	-	-	-13
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	6.67
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	140000	-	-	154000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	410U	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	140000	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	4.9U	4.9U	10.0U	-	10.0U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	1890	786	415	-	149J
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	630	210	40U	40U	660	-	-	40U	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	52700	-	-	52800	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-178	MW-178	MW-178	MW-178	MW-178	MW-178	MW-178	MW-178	MW-178	MW-178	MW-178	MW-178	MW-193
			Sample Date	03/25/2008	09/29/2008	09/30/2008	03/11/2009	05/18/2009	10/13/2009	03/04/2010	04/08/2011	06/05/2012	07/02/2013	09/17/2014	03/13/2018	08/17/2007
			Field Sample ID	M178A4X	M178A5	M178A5X	M178A6X	M178A7X	M178A8X	M178A9X	M178B1X	M178B2X	M178B3X	M178B4X	M178B8	M193A1
			SDG	1083150	1112628	1112628	1135630	1145283	1166229	RFS32	RFT06	RFU78	RFB27	CS157	CS657	1052220
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	7.61	-	-	-	-	-	0	-	0.79	0.22	-	-
DO	mg/L	N	NS	-	0	-	-	-	-	-	11.53	7.62	7.45	9.04	-	-
ORP	millivolts	N	NS	-	-146	-	-	-	-	-	68	-	-163	141	-	-
pH	pH Units	N	NS	-	7.60	-	-	-	-	-	7.21	-	7.56	7.20	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.2U	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.6J	0.5U	3J	0.5U	0.5U	0.5U	6	2J	0.5U	10	0.5U
Iron	ug/L	N	300	-	699	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-193	MW-193	MW-193	MW-193	MW-193	MW-193	MW-193	MW-193	MW-193	MW-193	MW-208	MW-208	MW-208
			Sample Date	10/11/2007	01/23/2008	10/16/2008	01/14/2009	05/05/2009	08/25/2009	11/24/2009	10/22/2010	09/27/2011	07/11/2013	03/07/2005	03/08/2005	08/18/2005
			Field Sample ID	M193A2	M193A3	M193A4	M193A5	M193A6	M193A7	M193A8	M193A9X	M193B1X	M193B2X	M208A1	M208A1X	M208A2
			SDG	1060617	1074539	1115428	1128343	1143633	1159245	1172692	RFS74	RFT73	RFB36	RFF41	RFF41	956018
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	5.17	6.71	4.71	-	-	5.29
DO	mg/L	N	NS	-	-	-	-	-	-	-	6.03	6.87	4.69	-	-	2.86
ORP	millivolts	N	NS	-	-	-	-	-	-	-	103	119	-74	-	-	-130
pH	pH Units	N	NS	-	-	-	-	-	-	-	6.51	6.65	6.84	-	-	6.27
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	368000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	43000	-	43700
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	34400	-	34100
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	6000U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208
			Sample Date	08/18/2005	03/14/2006	03/14/2006	07/12/2006	07/13/2006	10/26/2006	10/27/2006	04/10/2007	04/11/2007	09/04/2007	09/05/2007	03/19/2008	03/19/2008
			Field Sample ID	M208A2X	M208A3	M208A3X	M208A4	M208A4X	M208A5	M208A5X	M208A6	M208A6X	M208A7	M208A7X	D0319081	M208A8
			SDG	956018	981574	981574	997280	997280	1011912	1011912	1033234	1033234	1054619	1054619	1082600	1082600
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.29	-	-	-	-	-	-	-	-	-	-	4.77	4.77
DO	mg/L	N	NS	2.86	-	-	-	-	-	-	-	-	-	-	0	0
ORP	millivolts	N	NS	-130	-	-	-	-	-	-	-	-	-	-	-159	-159
pH	pH Units	N	NS	6.27	-	-	-	-	-	-	-	-	-	-	7.64	7.64
Alkalinity to pH 4.5	ug/L	N	NS	376000	-	353000	-	377000	-	355000	-	371000	-	348000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	460U	-	460U	-	460U	-	460U	-	460U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-
Iron	ug/L	N	300	-	53600	-	53400J	-	21000J	-	62100	-	20200	-	32300	32000
Iron	ug/L	Y	300	-	42200	-	48600J	-	17100J	-	67600	-	6640	-	29300	27800
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	400U	-	40U	-	40U	-	40U	-	40U	-	40U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	7500U	-	6000U	-	6000U	-	15000U	-	10000U	-	10000U	-	-
Sulfide	ug/L	N	NS	4200U	-	530U	-	530U	-	530U	-	530U	-	530U	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208
			Sample Date	03/20/2008	03/20/2008	09/02/2008	09/03/2008	03/12/2009	03/13/2009	09/30/2009	10/01/2009	04/07/2010	04/08/2010	05/09/2011	05/10/2011	07/09/2013
			Field Sample ID	D0320081	M208A8X	M208A9	M208A9X	M208B1	M208B1X	M208B2	M208B2X	M208B3	M208B3X	M208B4	M208B4X	M208B5X
			SDG	1082600	1082600	1108227	1108227	1136060	1136060	1164446	1164446	RFS37	RFS37	RFT19	RFT19	RFB32
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	5.14	-	5.31	-	4.9	-	4.56	4.47	3.45	0.64	0.28
DO	mg/L	N	NS	-	-	0	-	0	-	3.71	-	0.72	4.58	6.03	4.92	6.43
ORP	millivolts	N	NS	-	-	-150	-	-69	-	-63	-	-43	-87	-70	-99	-270
pH	pH Units	N	NS	-	-	6.99	-	6.41	-	6.00	-	6.38	6.38	6.81	6.85	6.82
Alkalinity to pH 4.5	ug/L	N	NS	324000	323000	-	334000	-	298000	-	306000	-	277000	-	272000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U
Iron	ug/L	N	300	-	-	33800	-	39100	-	13700	-	41800	-	41400	-	-
Iron	ug/L	Y	300	-	-	32800	-	31200	-	10100	-	38900	-	40800	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	10000U	10000U	-	10000U	-	10000U	-	10000U	-	5000U	-	10000U	-
Sulfide	ug/L	N	NS	530U	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-208	MW-208	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209
			Sample Date	12/15/2015	06/13/2017	03/07/2005	03/08/2005	08/22/2005	08/23/2005	03/13/2006	03/14/2006	07/12/2006	07/13/2006	10/26/2006	10/27/2006	04/05/2007
			Field Sample ID	M208B6	M208B7	M209A1	M209A1X	M209A2	M209A2X	M209A3	M209A3X	M209A4	M209A4X	M209A5	M209A5X	M209A6X
			SDG	CS329	CS571	RFF41	RFF41	956523	956523	981574	981574	997280	997280	1011912	1011912	1032549
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	10.61	4.29	-	-	4.84	-	-	-	4.35	-	-	-	-
DO	mg/L	N	NS	0.9	1.32	-	-	2.27	-	-	-	0.15	-	-	-	-
ORP	millivolts	N	NS	235	87	-	-	-111	-	-	-	-158	-	-	-	-
pH	pH Units	N	NS	7.05	7.84	-	-	5.98	-	-	-	6.58	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	103000	-	103000	-	97500	-	116000	-	25700	72400
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	410U	-	410U	-	460U	-	460U	-	460U	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.8J	-	0.8J	-	0.7J	-	0.6J	-	0.5U	0.9J
Iron	ug/L	N	300	-	-	34100	-	42000	-	37800	-	41000J	-	33300J	-	-
Iron	ug/L	Y	300	-	-	20400	-	39700	-	27200	-	40100J	-	23500J	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	40U	-	40U	-	40U	-	40U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	3000U	-	6000U	-	3000U	-	6000U	-	276000	109000
Sulfide	ug/L	N	NS	-	-	-	530U	-	6400J	-	530U	-	530U	-	530U	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209
			Sample Date	09/04/2007	09/05/2007	03/19/2008	03/20/2008	09/02/2008	09/03/2008	03/12/2009	03/13/2009	09/30/2009	10/01/2009	04/07/2010	04/08/2010	10/25/2010
			Field Sample ID	M209A7	M209A7X	M209A8	M209A8X	M209A9	M209A9X	M209B1	M209B1X	M209B2	M209B2X	M209B3	M209B3X	M209B4
			SDG	1054619	1054619	1082600	1082600	1108227	1108227	1136060	1136060	1164446	1164446	RFS37	RFS37	RFS75
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	4.23	-	4.61	-	4.6	-	4.1	-	3.97	4.01	4.24
DO	mg/L	N	NS	-	-	0	-	0	-	0	-	4.41	-	0	5.43	0
ORP	millivolts	N	NS	-	-	-124	-	-125	-	-105	-	-77	-	-97	-69	-104
pH	pH Units	N	NS	-	-	7.25	-	6.70	-	6.53	-	6.00	-	6.17	5.99	6.28
Alkalinity to pH 4.5	ug/L	N	NS	-	108000	-	81600	-	106000	-	97700	-	110000	-	88100	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	14.0J	-	32.0	-	46.5	-	19.3J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	52500	-	30800	-	40800	-	37900	-	39100	-	45800	-	20900
Iron	ug/L	Y	300	50600	-	26200	-	36000	-	33800	-	35500	-	37100	-	13300
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	45000	-	25000U	-	5000U	-	10000U	-	5000U	-	5000U	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-213	MW-213	MW-213	MW-213
			Sample Date	10/26/2010	05/09/2011	05/10/2011	07/08/2013	07/09/2013	11/24/2015	11/25/2015	06/12/2017	06/13/2017	01/29/2013	01/29/2013	05/09/2013	07/10/2013
			Field Sample ID	M209B4X	M209B5	M209B5X	M209B6	M209B6X	M209B7	M209B7X	M209B8	M209B8X	M213A2	M213A2X	M213A3X	M213A4X
			SDG	RFS75	RFT19	RFT19	RFB32	RFB32	CS320	CS320	CS571	CS571	RFX41	RFX41	RFZ32	CP039
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.49	1.78	0.2179	0.36	0.2	-	6.11	-	5.42	6.46	6.46	1.1	4.53
DO	mg/L	N	NS	0.41	NM	4.28	8.72	5.23	-	6.88	-	5.3	11.1	11.1	8.35	9.08
ORP	millivolts	N	NS	4	-52	-18	-124	-219	-	87	-	-22	-105	-105	-77.8	-71
pH	pH Units	N	NS	5.90	6.80	6.55	7.49	6.43	-	7.45	-	8.48	6.50	6.50	6.64	6.30
Alkalinity to pH 4.5	ug/L	N	NS	91300	-	93500	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	68200	-	89500	-	61600	-	-	463000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	700U	-	700U	-	1700U	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	68200	-	89500	-	61600	-	-	463000	-
Arsenic	ug/L	N	3	-	49.5	-	10.6	-	14.7	-	22.8	-	18.6	-	-	-
Arsenic	ug/L	Y	3	-	-	-	0.54J	-	1.8J	-	2.2	-	2.2	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U
Iron	ug/L	N	300	-	38500	-	10300	-	-	-	-	-	19700	-	-	-
Iron	ug/L	Y	300	-	36300	-	50.9J	-	29500	-	15800	-	17900	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	425	-	74.7U	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	550	-	170	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	5000U	-	5000U	-	3100J	-	-	-	-	-	-	1600J	-
Sulfide	ug/L	N	NS	530U	-	530U	-	600U	-	29900	-	10700J	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	680U	-	700U	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-213	MW-213	MW-213	MW-213	MW-213	MW-213	MW-213	MW-213	MW-213	MW-214	MW-214	MW-214	MW-214
			Sample Date	12/13/2013	07/13/2015	07/14/2015	10/19/2017	10/19/2017	01/10/2018	01/10/2018	02/06/2018	02/07/2018	04/23/2012	04/23/2012	04/23/2012	06/21/2012
			Field Sample ID	M213A5X	M213A6	M213A6X	M213C2	M213C2X	M213C3	M213C3X	M213C4	M213C4X	D0423123	M214A1	M214A1X	M214A2
			SDG	CP239	CS260	CS260	CQ829	CQ829	CQ936	CQ936	CS642	CS642	RFU48	RFU48	RFU48	RFU90
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.27	-	-	1.73	1.73	0.37	0.37	-	-	1.42	1.42	1.42	3.27
DO	mg/L	N	NS	8.95	-	6.19	8.4	8.4	6.55	6.55	-	-	5.43	5.43	5.43	5.26
ORP	millivolts	N	NS	-75.5	-	-328	-79.4	-79.4	-110.1	-110.1	-	-	-111	-111	-111	-100
pH	pH Units	N	NS	6.43	-	NM	6.69	6.69	6.14	6.14	-	-	8.82	8.82	8.82	6.54
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	644000	-	-	-	-	-	442000	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	-	-	-	-	1700U	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	644000	-	-	-	-	-	442000	-	-	-	-
Arsenic	ug/L	N	3	-	6.3	-	4.6	-	2	-	5.4	-	-	5.1U	-	9.2J
Arsenic	ug/L	Y	3	-	6.2	-	5	-	1.7J	-	4.5	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	-	-	0.5U	-	0.5U	-	-	6	-	6	-
Iron	ug/L	N	300	-	23600	-	15400	-	7110	-	5160	-	-	37700	-	33600
Iron	ug/L	Y	300	-	23400	-	14400	-	7040	-	4600	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	-	-	-	-	40U	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	5000U	-	3000J	-	7700	-	1000U	-	-	-	-
Sulfide	ug/L	N	NS	-	-	680U	-	-	-	-	-	700U	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214
			Sample Date	06/21/2012	11/14/2012	11/14/2012	01/28/2013	01/28/2013	05/10/2013	07/03/2013	07/03/2013	10/17/2013	12/18/2013	12/18/2013	03/31/2014	03/31/2014
			Field Sample ID	M214A2X	M214A3	M214A3X	D0128137	M214A4	M214A5X	M214A6	M214A6X	M214A7X	M214A8	M214A8X	M214A9	M214A9X
			SDG	RFU90	RFX05	RFX05	RFX41	RFX41	RFZ38	CP033	CP033	CP150	CP243	CP243	CP291	CP291
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.27	-	-	1.59	1.59	1.1	9.9	9.9	40.98	2.32	2.32	0.57	0.57
DO	mg/L	N	NS	5.26	-	-	4.7	4.7	3.79	4	4	6.55	6.33	6.33	4.4	4.4
ORP	millivolts	N	NS	-100	-	-	0.5	0.5	-128.1	-200	-200	328	7.68	7.68	-105.5	-105.5
pH	pH Units	N	NS	6.54	-	-	6.25	6.25	10.76	9.99	9.99	3.18	6.34	6.34	6.61	6.61
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	578000	-	-	700U	-	-	700U	-	505000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	578000	-	-	2560000	-	1700000	700U	-	505000	-	-
Arsenic	ug/L	N	3	-	10.1J	-	5.4	4.8	-	601	-	-	6.5	-	20.9	-
Arsenic	ug/L	Y	3	-	-	-	5.0	5.0	-	564	-	-	2.3	-	12.3	-
Benzene	ug/L	N	1	5	-	4J	-	-	25U	-	34J	47	-	38	-	29
Iron	ug/L	N	300	-	26800	-	19000J	19100	-	1590	-	-	42200	-	52000	-
Iron	ug/L	Y	300	-	-	-	11800J	12000	-	144J	-	-	29100	-	44800	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	33700	-	-	5180000	-	5920000	14100000	-	18000000	-	1190000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	600U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214	MW-214R	MW-214R
			Sample Date	07/11/2014	07/11/2014	07/11/2014	09/10/2014	09/10/2014	03/10/2015	03/10/2015	04/21/2015	04/22/2015	07/23/2015	07/24/2015	10/19/2017	10/19/2017
			Field Sample ID	M214B1	M214B1	M214B1X	M214B2	M214B2X	M214B3	M214B3X	M214B4	M214B4X	M214B5X	M214B5	M214RC4	M214RC4
			SDG	CP411	CP412	CP411	CP498	CP498	CP664	CP664	CP689	CP690	CP791	CP793	CQ819	CQ829
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.02	1.02	1.02	0.34	0.34	0.82	0.82	0.14	0.12	0	-	-	-
DO	mg/L	N	NS	5.31	5.31	5.31	4.59	4.59	4.75	4.75	4.4	5.12	5.54	-	-	-
ORP	millivolts	N	NS	-104.2	-104.2	-104.2	-99.3	-99.3	-99	-99	-121.6	-85.7	-86	-	-	-
pH	pH Units	N	NS	6.84	6.84	6.84	5.76	5.76	7.10	7.10	7.26	7.26	6.83	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	63.0	-	-	42.8	-	46.0	-	75.6	-	-	24.6	-	2.8
Arsenic	ug/L	Y	3	-	48.9	-	39.6	-	39.2	-	53.1	-	-	20.3	-	2.9
Benzene	ug/L	N	1	-	-	18	-	16	-	18	-	21	16	-	0.5J	-
Iron	ug/L	N	300	65600	-	-	48000	-	34600	-	19100	-	-	14200	-	15200
Iron	ug/L	Y	300	-	49900	-	43900	-	31500	-	11200	-	-	10900	-	13800
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	816000	-	771000	-	182000	-	460000	113000	-	534000J	-
Sulfide	ug/L	N	NS	-	-	12100	-	600U	-	680U	-	680U	680U	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-214R	MW-214R	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215
			Sample Date	01/11/2018	01/11/2018	04/23/2012	04/23/2012	06/20/2012	06/20/2012	11/14/2012	11/14/2012	01/28/2013	05/13/2013	07/01/2013	07/02/2013	10/15/2013
			Field Sample ID	M214RC5	M214RC5X	M215A1	M215A1X	D0620123	M215A2	M215A3	M215A3X	M215A4	M215A5X	M215A6	M215A6X	M215A7X
			SDG	CQ938	CQ938	RFU48	RFU48	RFU88	RFU88	RFX05	RFX05	RFX41	RFZ39	CP026	CP028	CP143
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.53	0.53	6.3	6.3	2.95	2.95	-	-	0.56	2.66	1.14	0.17	4.77
DO	mg/L	N	NS	4.34	4.34	11.4	11.4	10.9	10.9	-	-	6.2	7.7	9.36	9.35	9.48
ORP	millivolts	N	NS	-118.2	-118.2	-201	-201	-215	-215	-	-	-163.3	-477.1	-292	-306	-237
pH	pH Units	N	NS	7.13	7.13	5.55	5.55	6.36	6.36	-	-	4.01	11.44	9.99	9.96	6.12
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	115000	-	280000	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	115000	-	280000	-	1190000	742000
Arsenic	ug/L	N	3	2.6	-	5.1U	-	-	7.5J	6.8U	-	4.6	-	5.1	-	-
Arsenic	ug/L	Y	3	2.4	-	-	-	-	-	-	-	2.5	-	3.3	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.8J	1J	1J	-	3J	-	2J	-	3J	2J
Iron	ug/L	N	300	18700	-	6290	-	-	21300	30000	-	16300	-	49300	-	-
Iron	ug/L	Y	300	17400	-	-	-	-	-	-	-	14800	-	46900	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	605000	-	-	-	-	-	269000	-	196000	-	3820000	5990000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215	MW-215
			Sample Date	12/16/2013	12/16/2013	03/31/2014	03/31/2014	07/16/2014	07/16/2014	09/11/2014	09/11/2014	09/11/2014	01/14/2015	01/14/2015	04/22/2015	04/22/2015
			Field Sample ID	M215A8	M215A8X	M215A9	M215A9X	M215B1	M215B1X	M215B2	M215B2	M215B2X	M215B3	M215B3X	M215B4	M215B4X
			SDG	CP240	CP240	CP291	CP291	CP415	CP415	CP502	CP503	CP502	CP636	CP636	CP690	CP690
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.18	1.18	1.83	1.83	0.54	0.54	0.67	0.67	0.67	1.12	1.12	1.79	1.79
DO	mg/L	N	NS	7.81	7.81	7.96	7.96	5.93	5.93	6.46	6.46	6.46	9.61	9.61	7.05	7.05
ORP	millivolts	N	NS	-117.3	-117.3	-43.4	-43.4	-35.7	-35.7	201.3	201.3	201.3	38.7	38.7	264.7	264.7
pH	pH Units	N	NS	5.86	5.86	6.65	6.65	6.71	6.71	4.40	4.40	4.40	6.20	6.20	5.14	5.14
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	411000	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	411000	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	9.5	-	3.4	-	5.1	-	2.9	-	-	3.9	-	3.1	-
Arsenic	ug/L	Y	3	5.1	-	2.2	-	1.0UJ	-	-	2.1	-	0.82U	-	1.4J	-
Benzene	ug/L	N	1	-	2J	-	1	-	0.9J	-	-	2	-	1	-	0.5U
Iron	ug/L	N	300	24200	-	6170	-	36900	-	11100	-	-	6270	-	3910	-
Iron	ug/L	Y	300	17100	-	4520	-	28500	-	-	9850	-	5260	-	1760	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2680000	-	508000	-	120000	-	-	335000	-	182000	-	96900
Sulfide	ug/L	N	NS	-	-	-	600U	-	600U	-	-	1900J	-	1900J	-	680U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-215	MW-215	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227
			Sample Date	07/23/2015	07/24/2015	01/11/2006	07/11/2006	08/16/2006	10/25/2006	12/19/2006	02/20/2007	07/12/2007	10/11/2007	01/23/2008	09/04/2008	09/05/2008
			Field Sample ID	M215B5X	M215B5	M227A1	M227A2	M227A3	M227A4	M227A5	M227A6	M227A7	M227A8	M227A9	M227B1	M227B1X
			SDG	CP791	CP793	974018	996874	1001891	1011503	1018856	1026191	1046717	1060617	1074539	1108739	1108739
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.41	-	-	-	-	-	-	-	-	-	-	3.25	-
DO	mg/L	N	NS	9.95	-	-	-	-	-	-	-	-	-	-	0	-
ORP	millivolts	N	NS	-219	-	-	-	-	-	-	-	-	-	-	-21	-
pH	pH Units	N	NS	6.14	-	-	-	-	-	-	-	-	-	-	6.74	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	346000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	3.1	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	2.1	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	2	-	360	2700	11000	3100	2400	4000	7500	2200	290	-	450
Iron	ug/L	N	300	-	10900	-	-	-	-	-	-	-	-	-	2160	-
Iron	ug/L	Y	300	-	10500	-	-	-	-	-	-	-	-	-	276	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	117000	-	-	-	-	-	-	-	-	-	-	-	10000U
Sulfide	ug/L	N	NS	960J	-	-	-	-	-	-	-	-	-	-	-	720J
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227	MW-227R
			Sample Date	10/14/2008	01/14/2009	05/06/2009	08/24/2009	08/24/2009	11/24/2009	11/24/2009	10/21/2010	10/22/2010	09/27/2011	05/08/2012	07/12/2013	11/25/2015
			Field Sample ID	M227B2	M227B3	M227B4	D0824093	M227B5	D1124093	M227B6	M227B7	M227B7X	M227B8X	M227B9X	M227C1X	M227RA1
			SDG	1115235	1128343	1143633	1159245	1159245	1172692	1172692	RFS74	RFS74	RFT73	RFU54	RFB37	CS320
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	3.21	7.08	-	0.06	1.1	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	6.39	0	-	5.07	9.35	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-92	-115	-	-80	-150	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	6.46	6.33	-	6.79	6.76	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	523000	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	460U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	470	120	100	12	14	14	16	-	19	25	170	140	82
Iron	ug/L	N	300	-	-	-	-	-	-	-	4530	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	1990	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	40U	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	10000U	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	530U	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-227R	MW-227R	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228
			Sample Date	05/19/2016	06/14/2017	01/12/2006	07/11/2006	10/24/2006	12/19/2006	02/19/2007	07/12/2007	10/11/2007	01/23/2008	09/04/2008	09/05/2008	10/14/2008
			Field Sample ID	M227RA2X	M227RA3X	M228A1	M228A2	M228A3	M228A4	M228A5	M228A6	M228A7	M228A8	M228A9	M228A9X	M228B1
			SDG	CS403	CS572	974193	996874	1011503	1018856	1026191	1046717	1060617	1074539	1108739	1108739	1115235
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.09	5.64	-	-	-	-	-	-	-	-	5.01	-	-
DO	mg/L	N	NS	9.61	1.06	-	-	-	-	-	-	-	-	0	-	-
ORP	millivolts	N	NS	23	-109	-	-	-	-	-	-	-	-	-3	-	-
pH	pH Units	N	NS	6.96	6.42	-	-	-	-	-	-	-	-	6.17	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	23000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	59	2	190	2J	0.5U	5	3J	7	0.5U	0.5U	-	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	16600	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	6600	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	620	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	497000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-228	MW-229	MW-229	MW-229
			Sample Date	01/15/2009	05/06/2009	08/25/2009	11/25/2009	10/25/2010	10/26/2010	09/29/2011	05/08/2012	07/09/2013	12/19/2014	01/12/2006	07/10/2006	10/24/2006
			Field Sample ID	M228B2	M228B3	M228B4	M228B5	M228B6	M228B6X	M228B7X	M228B8X	M228B9X	M228C1X	M229A1	M229A2	M229A3
			SDG	1128343	1144083	1159245	1172913	RFS75	RFS75	RFT74	RFU54	RFB32	CS193	974193	996874	1011503
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	3.42	0.1	0.41	0.63	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	5.71	2.93	3.51	2.98	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-26	-70	-318	-237	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	6.45	6.54	6.59	6.61	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	149000	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	460U	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	-	68700	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	67900	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	40U	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	210000	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	530U	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229	MW-229
			Sample Date	12/18/2006	02/19/2007	07/11/2007	10/10/2007	01/22/2008	09/04/2008	09/05/2008	10/16/2008	01/14/2009	05/05/2009	08/26/2009	11/25/2009	10/25/2010
			Field Sample ID	M229A4	M229A5	M229A6	M229A7	M229A8	M229A9	M229A9X	M229B1	M229B2	M229B3	M229B4	M229B5	M229B6
			SDG	1018856	1026191	1046717	1060372	1074539	1108739	1108739	1115428	1128343	1143633	1159433	1172913	RFS75
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	1.61	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	0	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-112	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	6.63	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	77300	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	460U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	22400	-	-	-	-	-	-	22300
Iron	ug/L	Y	300	-	-	-	-	-	18100	-	-	-	-	-	-	17600
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	40U	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	4800J	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	530U	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-229	MW-229	MW-229	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235
			Sample Date	10/26/2010	09/29/2011	07/09/2013	02/06/2007	02/07/2007	09/04/2007	09/05/2007	02/28/2008	02/29/2008	08/25/2008	08/26/2008	02/19/2009	02/20/2009
			Field Sample ID	M229B6X	M229B7X	M229B8X	M235A1	M235A1X	M235A2	M235A2X	M235A3	M235A3X	M235A4	M235A4X	M235A5	M235A5X
			SDG	RFS75	RFT74	RFB32	1024756	1024756	1054619	1054619	1079626	1079626	1107202	1107202	1133129	1133129
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	1.43	0.38	-	-	-	-	9.54	-	10.21	-	8.1	-
DO	mg/L	N	NS	-	4.89	1.67	-	-	-	-	6.53	-	0.16	-	1.12	-
ORP	millivolts	N	NS	-	-29	-259	-	-	-	-	215	-	-44	-	152	-
pH	pH Units	N	NS	-	6.66	6.24	-	-	-	-	7.13	-	6.98	-	6.88	-
Alkalinity to pH 4.5	ug/L	N	NS	96500	-	-	-	-	-	464000	-	411000	-	954000	-	409000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	-	-	-	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	10U	-	10.0U	-	10.0U	-	10.2U	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	3800	-	5290	-	110J	-	7920	-	299	-
Iron	ug/L	Y	300	-	-	-	-	-	605	-	52.2U	-	801	-	52.2U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	-	-	580	-	1800	-	900	-	340
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	5000U	-	-	-	-	-	78100	-	25000U	-	125000U	-	54600
Sulfide	ug/L	N	NS	530U	-	-	-	-	-	530U	-	4200U	-	4200U	-	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235
			Sample Date	10/05/2009	10/06/2009	03/22/2011	03/22/2011	10/04/2011	10/05/2011	06/26/2012	06/27/2012	09/04/2012	09/05/2012	05/09/2013	05/10/2013	10/01/2013
			Field Sample ID	M235A6	M235A6X	M235A7	M235A7X	M235A8	M235A8X	M235A9	M235A9X	M235B1	M235B1X	M235B2	M235B2X	M235B3
			SDG	1165120	1165120	RFT01	RFT01	RFT75	RFT75	RFU93	RFU93	RFV35	RFV35	RFZ36	RFZ36	CS020
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	10.55	-	6.91	6.91	7.21	5.94	0.12	4.58	4.61	-	-	-	1.84
DO	mg/L	N	NS	3.77	-	9.56	9.56	10.75	9.54	12.1	10.95	11.2	-	-	-	13.35
ORP	millivolts	N	NS	-8	-	139	139	36	162	-	100	52	-	-	-	-337
pH	pH Units	N	NS	6.74	-	6.73	6.73	7.25	6.82	-	6.91	6.78	-	-	-	6.86
Alkalinity to pH 4.5	ug/L	N	NS	-	427000	-	407000	-	392000	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	700U	-	700U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	443000	-	377000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	432000	-	443000	-	377000	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	2.5	-	0.80J	-	1.9J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	0.80J	-	0.61J	-	0.61J
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	4480	-	580	-	36.1J	-	761	-	2470	-	1970	-	3590
Iron	ug/L	Y	300	626	-	52.2U	-	14.1U	-	17000	-	119J	-	1360	-	615
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	1000	-	1200	-	690	-	540	-	400	-	930	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	250000U	-	58900	-	103000	-	45600J	-	74200	-	158000	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	1100U	-	600U	-	2400U	-	600U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-235	MW-236	MW-236
			Sample Date	10/02/2013	08/11/2014	08/12/2014	11/04/2014	11/05/2014	07/14/2015	07/15/2015	08/30/2017	08/31/2017	02/14/2018	02/15/2018	02/06/2007	02/07/2007
			Field Sample ID	M235B3X	M235B4	M235B4X	M235B5	M235B5X	M235B6	M235B6X	M235C1	M235C1X	M235C2	M235C2X	M236A1	M236A1X
			SDG	CS020	CS140	CS140	CS181	CS181	CS261	CS261	CS597	CS597	CS647	CS647	1024756	1024756
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.86	5.44	-	-	-	-	1.17	-	7.3	-	-	-	-
DO	mg/L	N	NS	11.28	11.34	10.93	-	-	-	10.62	-	11.62	-	-	-	-
ORP	millivolts	N	NS	-357	-301	-	-	-	-	-343	-	51	-	-	-	-
pH	pH Units	N	NS	6.78	7.25	-	-	-	-	13.54	-	7.10	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	421000	-	441000	-	439000	-	436000	-	428000	-	401000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	700U	-	700U	-	1700U	-	1700U	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	421000	-	441000	-	439000	-	436000	-	428000	-	401000	-	-
Arsenic	ug/L	N	3	-	1.8J	-	2.3	-	1.0U	-	0.83J	-	0.77J	-	10.7J	-
Arsenic	ug/L	Y	3	-	0.97J	-	1.2J	-	0.54U	-	0.76J	-	0.72U	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	13
Iron	ug/L	N	300	-	1280	-	1200	-	138J	-	326	-	92.7J	-	30300	-
Iron	ug/L	Y	300	-	54.6J	-	428	-	33.3U	-	80.5U	-	80.5U	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	330	-	810	-	70J	-	140	-	1000	-	2100	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	148000	-	125000	-	99800	-	72500	-	78700	-	52100	-	-
Sulfide	ug/L	N	NS	600U	-	600U	-	2300	-	680U	-	700U	-	700U	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236
			Sample Date	08/29/2007	08/30/2007	02/04/2008	02/05/2008	08/25/2008	08/26/2008	02/26/2009	02/27/2009	10/12/2009	10/13/2009	03/04/2010	03/05/2010	09/07/2010
			Field Sample ID	M236A2	M236A2X	M236A3	M236A3X	M236A4	M236A4X	M236A5	M236A5X	M236A6	M236A6X	M236A7	M236A7X	M236A8
			SDG	1054028	1054028	1076059	1076059	1107202	1107202	1134114	1134114	1166229	1166229	RFS32	RFS32	RFS66
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	9.42	-	-	-	9.56	-	9.69	-	8.96	-	9.68
DO	mg/L	N	NS	-	-	0	-	-	-	0	-	0	-	0	-	0
ORP	millivolts	N	NS	-	-	-135	-	-	-	-139	-	0.2	-	-117	-	0
pH	pH Units	N	NS	-	-	7.23	-	-	-	7.12	-	6.75	-	6.55	-	0.00
Alkalinity to pH 4.5	ug/L	N	NS	-	280000	-	364000	-	248000	-	444000	-	238000	-	387000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	149	-	305	-	87.0	-	47.4	-	75.7	-	53.9	-	94.7
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	1J	-	0.5U	-	13	-	0.5U	-	28	-
Iron	ug/L	N	300	31400	-	45300	-	26100	-	33100	-	29300	-	32300	-	22200
Iron	ug/L	Y	300	24900	-	31300	-	22600	-	29500	-	23500	-	28600	-	18500
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	25000U	-	25000U	-	50000U	-	25000U	-	50000U	-	2500U	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	1100U	-	530U	-	4200U	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236
			Sample Date	09/07/2010	03/21/2011	03/22/2011	09/26/2011	09/27/2011	05/02/2012	05/03/2012	09/04/2012	09/05/2012	05/09/2013	05/10/2013	09/26/2013	10/03/2013
			Field Sample ID	M236A8X	M236A9	M236A9X	M236B1	M236B1X	M236B2	M236B2X	M236B3	M236B3X	M236B4	M236B4X	M236B5	M236B6
			SDG	RFS66	RFT01	RFT01	RFT73	RFT73	RFU52	RFU52	RFV35	RFV35	RFZ36	RFZ36	CP120	CS023
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.68	2.26	0	1.98	2.55	2.6	0.06	1.65	1.84	-	-	-	0.58
DO	mg/L	N	NS	0	9.51	9.11	9.86	9.41	10.45	9.94	10.58	10.07	-	-	-	10.53
ORP	millivolts	N	NS	0	-112	-138	-61	-107	-81	-119	-60	-130	-	-	-	-398
pH	pH Units	N	NS	0.00	6.95	6.68	6.99	6.90	7.25	7.20	7.10	6.98	-	-	-	6.94
Alkalinity to pH 4.5	ug/L	N	NS	237000	-	428000	-	198000	-	242000	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	700U	-	700U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	250000	-	376000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	700U	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	250000	-	376000	-	-
Arsenic	ug/L	N	3	-	22.9	-	95.2	-	54.2	-	84.3	-	55.4	-	76.7	119
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	56.3	-	42.7	-	56.8	65.0
Benzene	ug/L	N	1	0.5U	-	22	-	0.5U	-	0.5U	-	0.5U	-	3J	-	-
Iron	ug/L	N	300	-	35300	-	32300	-	21600	-	22600	-	21900	-	-	24900
Iron	ug/L	Y	300	-	33800	-	24400	-	19100	-	16800	-	17900	-	-	20100
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	25000U	-	10000U	-	10000U	-	10000U	-	10000U	-	10000U	-	-
Sulfide	ug/L	N	NS	530U	-	600J	-	530U	-	600U	-	600U	-	600U	54U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236
			Sample Date	10/04/2013	11/06/2013	11/06/2013	01/06/2014	11/04/2014	11/05/2014	03/16/2015	03/16/2015	06/30/2015	06/30/2015	07/09/2015	07/10/2015	10/06/2015
			Field Sample ID	M236B6X	M236B7	M236B7X	M236B8	M236C1	M236C1X	D03161515	M236C2	D06301515	M236C3	M236C4	M236C4X	D10061515
			SDG	CS023	CP188	CP188	CP250	CS181	CS181	CP668	CP668	CP765	CP765	CS259	CS259	CP860
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	FD	REG	FD	REG	REG	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.44	0.27	0.27	-	-0.5	0	4.09	4.09	-	-	-	0.53	-
DO	mg/L	N	NS	9.8	10.46	10.46	-	10.75	10.12	9.66	9.66	-	-	-	10.2	-
ORP	millivolts	N	NS	-446	-125	-125	-	-134	-172	-115.5	-115.5	-	-	-	-82	-
pH	pH Units	N	NS	7.01	6.89	6.89	-	6.85	6.87	7.10	7.10	-	-	-	6.92	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	266000	-	-	-	-	278000	-	-	-	-	-	303000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	-	-	-	700U	-	-	-	-	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	266000	-	-	-	-	278000	-	-	-	-	-	303000	-
Arsenic	ug/L	N	3	-	52.9	-	26.3	52.6	-	27.4	28.6	44.1	44.4	48.0	-	59.4
Arsenic	ug/L	Y	3	-	48.9	-	25.1	55.3	-	-	-	-	-	46.1	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	-	1	-	-	-	-	-	0.5U	-
Iron	ug/L	N	300	-	19000	-	29600	17700	-	26100	20500	21600	22600	20900	-	19900
Iron	ug/L	Y	300	-	18800	-	28500	16700	-	-	-	-	-	19800	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	14000	-	15000	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	-	40U	-	250U	-	250U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	10000U	-	1500U	-	-	10000U	-	3700J	-	1500U	-	12500U	-
Sulfide	ug/L	N	NS	600U	-	-	-	-	600U	-	54U	-	680U	-	680U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-236	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245
			Sample Date	10/06/2015	08/30/2017	08/30/2017	08/31/2017	08/31/2017	02/14/2018	02/15/2018	02/28/2007	03/01/2007	08/27/2007	08/28/2007	02/04/2008	02/05/2008
			Field Sample ID	M236C5	D0830171	M236D3	D0831171	M236D3X	M236D4	M236D4X	M245A1	M245A1X	M245A2	M245A2X	M245A3	M245A3X
			SDG	CP860	CS597	CS597	CS597	CS597	CS647	CS647	1027541	1027541	1053581	1053581	1076059	1076059
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	0	0	-	-	-	-	-	-	5.65	-
DO	mg/L	N	NS	-	-	-	9.68	9.68	-	-	-	-	-	-	1.09	-
ORP	millivolts	N	NS	-	-	-	-103	-103	-	-	-	-	-	-	-142	-
pH	pH Units	N	NS	-	-	-	7.08	7.08	-	-	-	-	-	-	7.47	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	214000	-	269000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	626000	630000	-	493000	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	1700U	1700U	-	1700U	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	626000	630000	-	493000	-	-	-	-	-	-
Arsenic	ug/L	N	3	61.7	5.9	5.5	-	-	5.0	-	84.9	-	63.2	-	41.3	-
Arsenic	ug/L	Y	3	-	5.9	5.7	-	-	5.1	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	-	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.8J
Iron	ug/L	N	300	20900	21400	21600	-	-	13000	-	38400	-	62500	-	47900	-
Iron	ug/L	Y	300	-	20500	21100	-	-	12700	-	-	-	63200	-	48100	-
Methane	ug/L	N	NS	14000	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	250UJ	-	-	40U	40U	-	120	-	-	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1500U	-	-	4290000	4290000	-	269000	-	-	-	10000U	-	50000U
Sulfide	ug/L	N	NS	680U	-	-	700U	700U	-	700U	-	-	-	2000	-	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245
			Sample Date	09/15/2008	09/16/2008	03/04/2009	03/05/2009	10/06/2009	10/07/2009	04/12/2010	04/13/2010	10/21/2010	10/22/2010	02/07/2011	02/08/2011	09/26/2011
			Field Sample ID	M245A4	M245A4X	M245A5	M245A5X	M245A6	M245A6X	M245A7	M245A7X	M245A8	M245A8X	M245A9	M245A9X	M245B1
			SDG	1110464	1110464	1134810	1134810	1165407	1165407	RFS38	RFS38	RFS74	RFS74	RFS84	RFS84	RFT73
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.85	-	6.39	-	6.15	-	4.63	4.72	5.25	0	0.81	0	1.84
DO	mg/L	N	NS	0	-	0	-	0	-	1.61	0.12	3.03	0	0	0	7.53
ORP	millivolts	N	NS	-163	-	-120	-	-163	-	-177	-162	-113	0	-133	0	-82
pH	pH Units	N	NS	7.24	-	7.60	-	6.57	-	6.95	6.67	6.86	0.00	7.45	0.00	6.96
Alkalinity to pH 4.5	ug/L	N	NS	-	318000	-	-	-	340000	-	352000	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	-	-	460U	-	460U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	23.1	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	22600	-	30900	-	22800	-	17400	-	10500	-	15100	-	38500
Iron	ug/L	Y	300	23000	-	11800	-	23000	-	16200	-	9860	-	13800	-	31700
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	12500U	-	-	-	50000U	-	5000U	-	-	-	10000U	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	530U	-	1100U	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-245	MW-246	MW-246	MW-246	MW-246
			Sample Date	09/27/2011	05/02/2012	05/03/2012	08/30/2012	08/31/2012	10/03/2013	10/04/2013	02/06/2018	02/07/2018	02/06/2007	02/07/2007	08/29/2007	08/30/2007
			Field Sample ID	M245B1X	M245B2	M245B2X	M245B3	M245B3X	M245B4	M245B4X	M245D1	M245D1X	M246A1	M246A1X	M246A2	M246A2X
			SDG	RFT73	RFU52	RFU52	RFV33	RFV33	CS023	CS023	CS642	CS642	1024756	1024756	1054028	1054028
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.1	1.27	-	4.14	3.4	-	0.98	-	-	-	-	-	-
DO	mg/L	N	NS	4.79	9.11	8.89	8.85	8.32	8.66	8.57	-	-	-	-	-	-
ORP	millivolts	N	NS	-98	-109	-	-94	-87	-371	-361	-	-	-	-	-	-
pH	pH Units	N	NS	6.81	7.54	-	7.27	7.05	7.03	7.04	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	260000	-	-	-	-	-	-	-	-	-	-	-	166000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	-	-	700U	-	-	-	-	-	-	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	132000	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	700U	-	1700U	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	331000	-	366000	-	132000	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	23.3	-	10U	-	10.0U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	23.1	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	23400	-	18200	-	19100	-	5360	-	80500	-	69900	-
Iron	ug/L	Y	300	-	-	-	16700	-	12300	-	5000	-	-	-	69000	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	12500U	-	-	-	10000U	-	10000U	-	50000U	-	-	-	2500U
Sulfide	ug/L	N	NS	530U	-	-	-	600U	-	600U	-	1400U	-	-	-	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246
			Sample Date	11/19/2007	11/20/2007	02/06/2008	02/07/2008	09/18/2008	09/18/2008	04/13/2009	04/14/2009	09/28/2009	09/29/2009	04/05/2010	04/06/2010	09/07/2010
			Field Sample ID	M246A3	M246A3X	M246A4	M246A4X	M246A5	M246A5X	M246A6	M246A6X	M246A7	M246A7X	M246A8	M246A8X	M246A9
			SDG	1066488	1066488	1076506	1076506	1110903	1110903	1140444	1140444	1163942	1163942	RFS37	RFS37	RFS66
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	7.01	-	-	-	7.25	-	6.76	-	6.45	6.57	7.22
DO	mg/L	N	NS	-	-	0.12	-	-	-	0.92	-	5.49	-	0.21	3.79	0
ORP	millivolts	N	NS	-	-	-31	-	-	-	-50	-	-21	-	41	63	-45
pH	pH Units	N	NS	-	-	6.10	-	-	-	5.04	-	5.52	-	5.75	5.89	5.92
Alkalinity to pH 4.5	ug/L	N	NS	-	156000	-	179000	-	155000	-	187000	-	174000	-	206000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.0U	-	10.0U	-	10.2U	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	5J	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	74300	-	76400	-	83500	-	85600	-	75700	-	92900	-	85400
Iron	ug/L	Y	300	-	-	77900	-	79100	-	87300	-	75500	-	88800	-	86500
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	5000U	-	7500J	-	5000U	-	5000U	-	2500U	-	5000U	-
Sulfide	ug/L	N	NS	-	640J	-	530U	-	1200J	-	530U	-	530U	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246
			Sample Date	09/07/2010	04/28/2011	04/29/2011	09/28/2011	09/29/2011	06/05/2012	06/06/2012	08/30/2012	08/31/2012	05/10/2013	05/10/2013	11/06/2013	11/06/2013
			Field Sample ID	M246A9X	M246B1	M246B1X	M246B2	M246B2X	M246B3	M246B3X	M246B4	M246B4X	M246B5	M246B5X	M246B6	M246B6X
			SDG	RFS66	RFT15	RFT15	RFT74	RFT74	RFU79	RFU79	RFV33	RFV33	RFZ36	RFZ36	CP188	CP188
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.22	2.37	0	4.06	3.13	1.4	2.22	2.8	2.24	-	-	1.09	1.09
DO	mg/L	N	NS	0	9.96	7.47	8.81	7.51	7.7	6.84	11.76	8.29	-	-	7.41	7.41
ORP	millivolts	N	NS	-45	-11	-39	0	-11	22	-17	30	-5	-	-	-98	-98
pH	pH Units	N	NS	5.92	6.09	5.72	6.11	6.06	6.28	5.83	6.20	5.74	-	-	5.82	5.82
Alkalinity to pH 4.5	ug/L	N	NS	160000	-	186000	-	188000	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	-	-	700U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	700U	-	-	-	700U	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	101000	-	101000	-	59200	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	0.78U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	0.78U	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	87700	-	76900	-	87700	-	87300	-	90000	-	85000	-
Iron	ug/L	Y	300	-	88400	-	80300	-	86800	-	86400	-	92400	-	86500	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	5000U	-	4300J	-	5000U	-	10000U	-	2500U	-	10000U	-	4000J
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	600U	-	700J	-	600U	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246	MW-246R	MW-246R	MW-247	MW-247	MW-247	MW-247	MW-247
			Sample Date	01/06/2014	01/08/2014	06/09/2014	06/10/2014	07/20/2015	10/28/2015	12/07/2017	12/11/2017	02/15/2007	02/16/2007	08/27/2007	08/28/2007	11/19/2007
			Field Sample ID	M246B7	M246B7X	M246B8	M246B8X	M246B9X	M246C1X	D1207178A	M246RD1X	M247A1	M247A1X	M247A2	M247A2X	M247A3
			SDG	CP250	CP251	CS110	CS110	CP786	CP907	CQ919	CQ923	1025917	1025917	1053581	1053581	1066488
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	5.88	1.39	1.58	-	-	0.93	6.24	-	-	-	-	-
DO	mg/L	N	NS	-	8.6	9.83	5.64	-	-	4.72	4.41	-	-	-	-	-
ORP	millivolts	N	NS	-	-32.9	-117	-214	-	-	-62.1	-59.8	-	-	-	-	-
pH	pH Units	N	NS	-	6.25	6.23	5.91	-	-	6.32	6.30	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	152000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	700U	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	83800	-	-	-	131000	-	-	-	-	-
Arsenic	ug/L	N	3	0.78U	-	-	-	-	-	2.1	-	13.9J	-	10.0U	-	10.0U
Arsenic	ug/L	Y	3	0.78U	-	-	-	-	-	1.4J	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	0.5UJ	0.5U	32	-	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	107000	-	98900	-	-	-	97100	-	74200	-	39600	-	40100
Iron	ug/L	Y	300	99900	-	93000	-	-	-	93700	-	-	-	39200	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	-	-	40U	-	-	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	1500UJ	-	2500U	5200	10500	14300	-	-	-	-	4800J	-
Sulfide	ug/L	N	NS	-	-	-	600U	-	-	-	700U	-	-	-	1500J	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247	MW-247
			Sample Date	11/20/2007	02/14/2008	02/15/2008	09/16/2008	09/17/2008	03/12/2009	03/13/2009	09/30/2009	10/01/2009	04/07/2010	04/08/2010	05/10/2011	05/10/2011
			Field Sample ID	M247A3X	M247A4	M247A4X	M247A5	M247A5X	M247A6	M247A6X	M247A7	M247A7X	M247A8	M247A8X	M247A9	M247A9X
			SDG	1066488	1077812	1077812	1110669	1110669	1136060	1136060	1164446	1164446	RFS37	RFS37	RFT19	RFT19
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	7.63	-	7.04	-	7.82	-	6.9	-	6.98	6.99	6.35	6.35
DO	mg/L	N	NS	-	0.54	-	0	-	0	-	4.09	-	2.31	4.75	7.86	7.86
ORP	millivolts	N	NS	-	170	-	46	-	161	-	60	-	9	-26	141	141
pH	pH Units	N	NS	-	6.01	-	5.29	-	5.28	-	4.66	-	5.34	5.29	5.47	5.47
Alkalinity to pH 4.5	ug/L	N	NS	129000	-	89000	-	77700	-	113000	-	71900	-	120000	-	33300
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	-	10.2U	-	10.0U	-	7.2U	-	7.2U	-	9.8U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1J	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	3830	-	55100	-	9760	-	54400	-	24200	-	39900	-
Iron	ug/L	Y	300	-	16100	-	52100	-	7070	-	53100	-	18600	-	37500	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	7900J	-	5000U	-	19300	-	17400	-	31700	-	26000	-	36800
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-247	MW-247	MW-247	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248	MW-248
			Sample Date	05/25/2012	07/09/2013	07/10/2013	02/08/2007	02/09/2007	08/27/2007	08/28/2007	02/14/2008	02/15/2008	09/15/2008	09/16/2008	03/10/2009	03/11/2009
			Field Sample ID	M247RA4X	M247B2	M247B2X	M248A1	M248A1X	M248A2	M248A2X	M248A3	M248A3X	M248A4	M248A4X	M248A5	M248A5X
			SDG	RFU74	RFB33	RFB33	1025114	1025114	1053581	1053581	1077812	1077812	1110464	1110464	1135630	1135630
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	RE	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	1.02	-	1	-	1.07	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	0	-	0	-	0	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-32	-	-207	-	-108	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	9.67	-	9.25	-	9.41	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	89100	-	69500	-	93100	-	68700
Alkalinity to pH 8.3	ug/L	N	NS	700U	-	-	-	-	-	460U	-	9400	-	5800	-	1900J
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	110000	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	81700	-	110000	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	3.4	-	10U	-	14.8J	-	12.1J	-	14.5J	-	10.0U	-
Arsenic	ug/L	Y	3	-	3.1	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	41900	-	170J	-	162J	-	901	-	1160	-	216	-
Iron	ug/L	Y	300	-	39500	-	-	-	52.2U	-	52.2U	-	52.2U	-	52.2U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	-	-	40U	-	40U	-	40U	-	2600
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	9800	-	20900	-	-	-	19100	-	12800	-	17400	-	9600
Sulfide	ug/L	N	NS	600U	-	600U	-	-	-	920J	-	530U	-	530U	-	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-248	MW-248	MW-248R	MW-248R	MW-248R	MW-248R	MW-248R	MW-248R	MW-248R	MW-248R	MW-248R	MW-248R	MW-248R
			Sample Date	09/22/2009	09/23/2009	09/02/2010	09/02/2010	03/18/2011	03/18/2011	10/24/2011	10/25/2011	05/24/2012	09/06/2012	09/07/2012	07/02/2013	07/03/2013
			Field Sample ID	M248A6	M248A6X	M248RA1	M248RA1X	M248RA2	M248RA2X	M248RA3	M248RA3X	M248RA4	M248RA5	M248RA5X	M248RA6	M248RA6X
			SDG	1163168	1163168	RFS65	RFS65	RFS99	RFS99	RFT81	RFT81	RFU74	RFV38	RFV38	RFB29	RFB29
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.11	-	1.96	1.96	3.32	3.32	0.42	6.39	7.86	2.16	2.31	0.96	1.73
DO	mg/L	N	NS	8.56	-	2.15	2.15	0.95	0.95	3.65	2.34	3.52	4.02	2.17	4.16	2.1
ORP	millivolts	N	NS	-123	-	-25	-25	-133	-133	-42	56	-1	10	-29	-202	-138
pH	pH Units	N	NS	6.62	-	7.33	7.33	9.09	9.09	8.10	8.20	8.18	7.83	7.74	8.15	8.10
Alkalinity to pH 4.5	ug/L	N	NS	-	96000	-	112000	-	78300	-	107000	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	600J	-	460U	-	-	700U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	103000	-	85200
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	103000	-	85200
Arsenic	ug/L	N	3	14.1J	-	26.9	-	13.1J	-	27.5	-	35.7	30.9	-	25.7	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	30.4	-	23.6	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-	0.5U
Iron	ug/L	N	300	414	-	158J	-	328	-	189J	-	487	184J	-	1100	-
Iron	ug/L	Y	300	67.9J	-	71.6J	-	64.8J	-	97.3J	-	52.2J	42.2J	-	64.2J	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	6700	-	8400	-	10500	-	7600	-	-	10000	-	7800
Sulfide	ug/L	N	NS	-	530U	-	690J	-	600J	-	530U	-	-	600U	-	600U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-248R	MW-248R	MW-248R	MW-248R	MW-248R	MW-248R	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249
			Sample Date	09/29/2014	09/30/2014	10/01/2015	10/02/2015	03/12/2018	03/13/2018	02/20/2007	02/20/2007	08/27/2007	08/28/2007	02/14/2008	02/15/2008	09/15/2008
			Field Sample ID	M248RA7	M248RA7X	M248RA8	M248RA8X	M248RB2	M248RB2X	M249A1	M249A1X	M249A2	M249A2X	M249A3	M249A3X	M249A4
			SDG	CS163	CS163	CS294	CS294	CS657	CS657	1026729	1026729	1053581	1053581	1077812	1077812	1110464
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.6	0.92	-	2.23	-	-	-	-	-	-	0.94	-	1.05
DO	mg/L	N	NS	4.54	1.92	-	4.65	-	-	-	-	-	-	0	-	0
ORP	millivolts	N	NS	207	18	-	-102	-	-	-	-	-	-	72	-	-52
pH	pH Units	N	NS	7.71	7.43	-	7.56	-	-	-	-	-	-	7.08	-	7.00
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	155000	-	130000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	98800	-	93300	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	1700U	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	98800	-	93300	-	155000	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	25.7	-	22.8	-	17.4	-	10U	-	10.0U	-	10.0U	-	10.2U
Arsenic	ug/L	Y	3	24.7	-	20.5	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	1390	-	802	-	2060	-	1020	-	466	-	198J	-	1280
Iron	ug/L	Y	300	81.2J	-	580	-	674	-	-	-	119J	-	91.8J	-	183J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	600	-	40U	-	-	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	7300	-	7900	-	18700	-	-	-	23300	-	37800	-
Sulfide	ug/L	N	NS	-	600U	-	680U	-	700U	-	-	-	620J	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249
			Sample Date	09/16/2008	03/10/2009	03/11/2009	09/23/2009	09/24/2009	03/04/2010	03/05/2010	09/01/2010	09/02/2010	03/18/2011	03/18/2011	05/24/2012	05/25/2012
			Field Sample ID	M249A4X	M249A5	M249A5X	M249A6	M249A6X	M249A7	M249A7X	M249A8	M249A8X	M249A9	M249A9X	M249B1	M249B1X
			SDG	1110464	1135630	1135630	1163395	1163395	RFS32	RFS32	RFS65	RFS65	RFS99	RFS99	RFU74	RFU74
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	0.97	-	1.1	-	0.88	-	1.42	1.45	-	-	1.73	1.54
DO	mg/L	N	NS	-	0	-	5.68	-	0	-	1.83	0.63	-	-	1.31	1.08
ORP	millivolts	N	NS	-	120	-	4	-	71	-	-67	-17	-	-	38	70
pH	pH Units	N	NS	-	7.11	-	6.74	-	7.11	-	7.43	6.68	-	-	7.20	7.04
Alkalinity to pH 4.5	ug/L	N	NS	181000	-	117000	-	159000	-	93500	-	142000	-	91900	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	700U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	97400
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	266	-	271	-	636	-	267	-	219	-	268	-
Iron	ug/L	Y	300	-	52.2U	-	140J	-	129J	-	181J	-	96.8J	-	95.5J	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	43J	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	45500	-	49000	-	38100	-	44700	-	38300	-	39400	-	31400
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-	600U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-249	MW-249	MW-249	MW-249	MW-249	MW-249	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250
			Sample Date	07/02/2013	07/03/2013	06/10/2014	06/11/2014	10/01/2015	10/02/2015	02/15/2007	02/16/2007	05/22/2007	05/22/2007	08/22/2007	08/23/2007	11/19/2007
			Field Sample ID	M249B2	M249B2X	M249B3	M249B3X	M249B4	M249B4X	M250A1	M250A1X	M250A2	M250A2X	M250A3	M250A3X	M250A4
			SDG	RFB29	RFB29	CS111	CS111	CS294	CS294	1025917	1025917	1039429	1039429	1053010	1053010	1066488
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.19	3.86	1.69	1.66	-	3.23	-	-	-	-	-	-	-
DO	mg/L	N	NS	1.03	0.87	1.06	1.23	-	1.86	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-54	-61	-134	-286	-	-5	-	-	-	-	-	-	-
pH	pH Units	N	NS	8.05	7.30	7.12	6.89	-	5.84	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	511000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	83200	-	91000	-	79300	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	15.4J	-	13.6J	-	10.9J	-	10.0U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	180	-	5800	-	8000	-
Iron	ug/L	N	300	536	-	1200	-	27400	-	3240	-	5560	-	4990	-	4170
Iron	ug/L	Y	300	43.0U	-	114J	-	26200	-	-	-	-	-	4890	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	-	-	-	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	13900	-	26900	-	632000	-	-	-	-	-	10600	-
Sulfide	ug/L	N	NS	-	600U	-	600U	-	680U	-	-	-	-	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250
			Sample Date	11/20/2007	01/30/2008	01/31/2008	09/22/2008	09/23/2008	10/29/2008	05/11/2009	05/11/2009	09/01/2009	12/03/2009	04/08/2010	07/08/2010
			Field Sample ID	M250A4X	M250A5	M250A5X	M250A6	M250A6X	M250A7	M250A8	M250A8X	M250A9	M250B1	M250B2	M250B3
			SDG	1066488	1075579	1075579	1111596	1111596	1117434	1144240	1144240	1160143	1173658	GWC54	RFS54
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	8.78	-	8.6	-	-	8.78	8.78	-	-	8.56	8.76
DO	mg/L	N	NS	-	0.27	-	0	-	-	2.31	2.31	-	-	2.36	0.76
ORP	millivolts	N	NS	-	15	-	-79	-	-	-196	-196	-	-	-133	-102
pH	pH Units	N	NS	-	7.42	-	6.24	-	-	6.06	6.06	-	-	6.67	8.94
Alkalinity to pH 4.5	ug/L	N	NS	521000	-	518000	-	515000	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	-	10.2U	-	-	10.0U	-	-	-	-	10.8J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	6500	-	4200	-	760	6600	-	6500	5600	1400	6000	-
Iron	ug/L	N	300	-	3840	-	5690	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	110J	-	5000	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	9900J	-	2500U	-	2500U	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250
			Sample Date	07/20/2010	10/05/2010	10/28/2010	02/14/2011	02/15/2011	05/11/2011	08/08/2011	08/10/2011	08/01/2012	12/19/2012	04/29/2013	04/30/2013
			Field Sample ID	M250B4X-100720	M250B4	M250B5	M250B6	M250B6X	M250B7	M250B8	M250B8X	M250B9	M250C1X	M250C2	M250C2X
			SDG	RFS55	RFS70	RFS76	RFS86	RFS87	RFT20	RFT53	RFT55	RFV23	RFX25	RFZ22	RFZ22
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.65	-	8.78	-	-	9.14	1.03	2.49	1.26	3.86	-	-
DO	mg/L	N	NS	6.56	-	0	-	-	8.44	8.46	8.48	8.51	8.9	-	-
ORP	millivolts	N	NS	-113	-	0	-	-	-103	-94	-10.6	-110	-111.4	-	-
pH	pH Units	N	NS	6.88	-	0.00	-	-	6.95	7.00	6.85	12.28	6.77	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	495000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	495000
Arsenic	ug/L	N	3	-	-	9.8U	11.8J	-	-	5.1U	-	6.8U	-	9.9	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	9.0	-
Benzene	ug/L	N	1	5200	5300	-	-	1600	6000	-	5800	-	3900	-	4400
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	6800	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	6910	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	2500U
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	600U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-250	MW-250	MW-250	MW-250	MW-250	MW-250	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251
			Sample Date	10/06/2014	10/07/2014	11/22/2017	11/22/2017	01/26/2018	01/26/2018	02/15/2007	02/16/2007	08/22/2007	08/23/2007	01/28/2008	01/29/2008	09/18/2008
			Field Sample ID	M250C3	M250C3X	M250C7	M250C7X	M250C8	M250C8X	M251A1	M251A1X	M251A2	M251A2X	M251A3	M251A3X	M251A4
			SDG	CS166	CS166	CQ901	CQ901	CQ952	CQ952	1025917	1025917	1053010	1053010	1075238	1075238	1110903
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.8	0.17	-	-	-	-	-	-	-	-	6.71	-	-
DO	mg/L	N	NS	8.58	8.58	-	-	-	-	-	-	-	-	0	-	-
ORP	millivolts	N	NS	-135	244	-	-	-	-	-	-	-	-	-150	-	-
pH	pH Units	N	NS	6.66	6.67	-	-	-	-	-	-	-	-	7.62	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	459000	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	460U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	452000	-	-	-	378000	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	452000	-	-	-	378000	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	9.0	-	9.2	-	8.2	-	20.2	-	93.5	-	60.5	-	103
Arsenic	ug/L	Y	3	8.7	-	9.9	-	8.5	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	2700	-	1900	-	450	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	6770	-	6220	-	5540	-	3060	-	17800	-	16300	-	12900
Iron	ug/L	Y	300	6700	-	6000	-	5590	-	-	-	17300	-	18500	-	12700
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	-	250UJ	-	-	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2500U	-	7900	-	1500U	-	-	-	99600	-	12500U	-
Sulfide	ug/L	N	NS	-	600U	-	-	-	700U	-	-	-	530U	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251	MW-251
			Sample Date	09/18/2008	04/13/2009	04/14/2009	10/07/2009	10/08/2009	04/05/2010	04/06/2010	05/09/2011	05/10/2011	06/19/2013	06/20/2013	09/15/2014	09/16/2014
			Field Sample ID	M251A4X	M251A5	M251A5X	M251A6	M251A6X	M251A7	M251A7X	M251A8	M251A8X	M251A9	M251A9X	M251B1	M251B1X
			SDG	1110903	1140444	1140444	1165848	1165848	RFS37	RFS37	RFT19	RFT19	RFB13	RFB13	CS156	CS156
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	6.32	-	6.12	-	5.65	5.63	1.37	0	0.52	-0.13	1.52	0.53
DO	mg/L	N	NS	-	0	-	0.2	-	0.35	4.72	6.64	6.38	6.44	5.63	8.53	7.87
ORP	millivolts	N	NS	-	-165	-	-165	-	-136	-221	-135	-192	-152	-195	-330	249
pH	pH Units	N	NS	-	6.08	-	6.73	-	6.66	7.14	7.47	7.16	6.95	7.31	7.45	6.80
Alkalinity to pH 4.5	ug/L	N	NS	424000	-	392000	-	389000	-	428000	-	421000	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	403000	-	79900
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	403000	-	79900
Arsenic	ug/L	N	3	-	47.6	-	100	-	68.0	-	69.6	-	72.6	-	4.3	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	67.2	-	2.4	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	13600	-	15700	-	20700	-	17100	-	16800	-	753	-
Iron	ug/L	Y	300	-	11900	-	13600	-	18900	-	16600	-	15700	-	112J	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	88J
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	12500U	-	12500U	-	25000U	-	12500U	-	10000U	-	12500U	-	207000
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	730J	-	600U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-251	MW-251	MW-251	MW-251	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252
			Sample Date	07/14/2015	07/15/2015	11/01/2017	11/02/2017	02/15/2007	02/16/2007	08/22/2007	08/23/2007	11/13/2007	11/14/2007	02/06/2008	02/07/2008	09/10/2008
			Field Sample ID	M251B2	M251B2X	M251B7	M251B7X	M252A1	M252A1X	M252A2	M252A2X	M252A3	M252A3X	M252A4	M252A4X	M252A5
			SDG	CS261	CS261	CS621	CS621	1025917	1025917	1053010	1053010	1065611	1065611	1076506	1076506	1109693
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	2.39	-	0.62	-	-	-	-	-	-	6.31	-	-
DO	mg/L	N	NS	-	8.67	-	11.52	-	-	-	-	-	-	0	-	-
ORP	millivolts	N	NS	-	-55	-	149	-	-	-	-	-	-	-396	-	-
pH	pH Units	N	NS	-	7.37	-	7.63	-	-	-	-	-	-	7.45	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	2450000	-	2560000	-	2520000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	210000	-	153000	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	1700U	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	210000	-	153000	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	28.1	-	18.5	-	61.5	-	36.7	-	10.0U	-	10.0U	-	10.2U
Arsenic	ug/L	Y	3	22.1	-	13.1	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	1U	-	0.5U	-
Iron	ug/L	N	300	4150	-	2560	-	791	-	108J	-	454	-	479	-	136J
Iron	ug/L	Y	300	3290	-	1050	-	-	-	52.2U	-	-	-	52.2U	-	52.2U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	480	-	-	-	40U	-	200U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	37900	-	33600	-	-	-	84500	-	8000J	-	10900	-
Sulfide	ug/L	N	NS	-	680U	-	700U	-	-	-	157000	-	199000	-	303000	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252
			Sample Date	09/11/2008	04/01/2009	04/02/2009	10/12/2009	10/13/2009	03/31/2010	04/01/2010	08/16/2010	08/17/2010	02/07/2011	02/08/2011	10/24/2011	10/25/2011
			Field Sample ID	M252A5X	M252A6	M252A6X	M252A7	M252A7X	M252A8	M252A8X	M252A9	M252A9X	M252B1	M252B1X	M252B2	M252B2X
			SDG	1109693	1138848	1138848	1166229	1166229	RFS36	RFS36	RFS64	RFS64	RFS84	RFS84	RFT81	RFT81
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	6.61	-	6.68	-	6.84	-	-	-	0	-	1.93	0.18
DO	mg/L	N	NS	-	5.77	-	0	-	0.37	-	-	-	17.29	-	14.21	8.82
ORP	millivolts	N	NS	-	-195	-	-395	-	-349	-	-	-	-343	-	-317	-363
pH	pH Units	N	NS	-	9.12	-	6.71	-	6.48	-	-	-	6.64	-	8.23	6.95
Alkalinity to pH 4.5	ug/L	N	NS	2490000	-	1180000	-	2540000	-	2370000	-	2240000	-	1890000	-	2340000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	-	36.0U	-	7.2U	-	9.8U	-	19.6U	-	9.6J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3U	-	0.5U	-	3U	-	0.5U	-	0.5U	-	3U	-	0.5U
Iron	ug/L	N	300	-	140J	-	261U	-	1980	-	62.2J	-	794	-	1340	-
Iron	ug/L	Y	300	-	52.2U	-	554J	-	52.2U	-	52.2U	-	53.2J	-	93.5J	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	840	-	200U	-	200U	-	400U	-	40U	-	130
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	10400	-	34500	-	9500	-	7900	-	13400	-	16700	-	5000U
Sulfide	ug/L	N	NS	69400	-	3700	-	154000	-	217000	-	228000	-	164000	-	253000
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252	MW-252
			Sample Date	04/23/2012	04/23/2012	11/12/2012	11/12/2012	01/28/2013	05/09/2013	07/09/2013	07/09/2013	10/15/2013	12/09/2013	12/09/2013	07/10/2014	01/09/2015
			Field Sample ID	M252B3	M252B3X	M252B4	M252B4X	M252B5	M252B6X	M252B7	M252B7X	M252B8X	M252B9	M252B9X	M252C1X	M252C2X
			SDG	RFU48	RFU48	RFX03	RFX03	RFX41	RFZ32	CP036	CP036	CP143	CP234	CP234	CP408	CP634
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.37	0.37	-	-	0.63	2.53	22.03	22.03	4.42	0	0	4.67	11.14
DO	mg/L	N	NS	13.85	13.85	-	-	7.4	12.3	10.63	10.63	9.14	10.99	10.99	8.76	10.1
ORP	millivolts	N	NS	-352	-352	-	-	-351.4	-331.8	-322	-322	-304	-393.2	-393.2	96.6	-362.7
pH	pH Units	N	NS	6.57	6.57	-	-	6.62	6.81	6.78	6.78	6.66	7.62	7.62	8.23	6.77
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	2440000	-	2350000	-	-	-	-	700U	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	2440000	-	2350000	-	185000	2490000	-	897000	-	-
Arsenic	ug/L	N	3	6.9J	-	34.0U	-	3.0	-	5.1	-	-	5.0	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	2.6	-	4.7	-	-	4.4	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	0.5U
Iron	ug/L	N	300	597	-	231	-	439	-	388J	-	-	93.6J	-	-	-
Iron	ug/L	Y	300	-	-	-	-	33.3U	-	43.0U	-	-	43.0U	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	1110000	-	51600	-	85700	16200	-	44500	37900	45800
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	190000
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-252	MW-252R	MW-252R	MW-252R	MW-252R	MW-252R	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253
			Sample Date	07/14/2015	10/18/2017	10/18/2017	01/10/2018	01/10/2018	01/10/2018	02/20/2007	02/20/2007	08/20/2007	08/21/2007	02/19/2008	02/20/2008	09/16/2008
			Field Sample ID	M252C3X	M252RC8	M252RC8X	D0110188	M252RC9	M252RC9X	M253A1	M253A1X	M253A2	M253A2X	M253A3	M253A3x	M253A4
			SDG	CP779	CQ825	CQ825	CQ936	CQ936	CQ936	1026729	1026729	1052568	1052568	1078319	1078319	1110669
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	1.75	1.75	0.61	0.61	0.61	-	-	-	-	5.05	-	3.1
DO	mg/L	N	NS	-	9.05	9.05	10.3	10.3	10.3	-	-	-	-	3.26	-	3.13
ORP	millivolts	N	NS	-	-377.5	-377.5	-373.3	-373.3	-373.3	-	-	-	-	-61	-	-79
pH	pH Units	N	NS	-	6.95	6.95	6.77	6.77	6.77	-	-	-	-	6.50	-	6.22
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	195000	-	57000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	6.2	-	3.9	2.8	-	16.8J	-	57.1	-	40.8	-	228
Arsenic	ug/L	Y	3	-	6.1	-	3.7	3.9J	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	3UJ	0.5U	-	0.5U	-	0.5U	-	0.7J	-	0.6J	-
Iron	ug/L	N	300	-	98.5J	-	632J	998J	-	214000	-	333000	-	329000	-	429000
Iron	ug/L	Y	300	-	80.5U	-	80.5U	80.5U	-	-	-	416000	-	332000	-	457000
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	40U	-	200U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	46900	-	36900	36100	-	33800	-	-	-	2940000	-	3410000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	3000	-	1200J	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253
			Sample Date	09/17/2008	03/17/2009	03/18/2009	09/23/2009	09/24/2009	03/17/2010	03/18/2010	04/06/2011	04/07/2011	06/19/2012	06/20/2012	05/30/2013	05/31/2013
			Field Sample ID	M253A4X	M253A5	M253A5X	M253A6	M253A6X	M253A7	M253A7X	M253A9	M253A9X	M253B1	M253B1X	M253B2	M253B2X
			SDG	1110669	1136756	1136756	1163395	1163395	RFS34	RFS34	RFT05	RFT05	RFU86	RFU86	RFZ73	RFZ73
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	4.81	-	3.29	-	8.22	-	0.65	0	0.85	0.07	0.43	-
DO	mg/L	N	NS	-	0	-	4.67	-	5.26	-	9	8.91	8.86	7.72	8.94	9.08
ORP	millivolts	N	NS	-	-81	-	19	-	-30	-	2	0	-22	53	-96	-
pH	pH Units	N	NS	-	6.55	-	5.41	-	5.78	-	5.80	0.00	6.81	5.13	6.22	-
Alkalinity to pH 4.5	ug/L	N	NS	23300	-	85400	-	135000	-	111000	-	53100	-	75300	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	700U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	268000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	268000
Arsenic	ug/L	N	3	-	123	-	69.5J	-	31.9	-	266	-	461	-	438	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	472	-
Benzene	ug/L	N	1	0.7J	-	0.5U	-	0.6J	-	0.5J	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	297000	-	575000	-	353000	-	387000	-	363000	-	287000	-
Iron	ug/L	Y	300	-	266000	-	536000	-	315000	-	397000	-	390000	-	283000	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	400U	-	40U	-	800U	-	400U	-	40U	-	40U	-	46J
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	4180000	-	2740000	-	3540000	-	2950000	-	3100000	-	2780000	-	1990000
Sulfide	ug/L	N	NS	1300J	-	530U	-	530U	-	530U	-	1400J	-	1100J	-	1400J
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-253	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254
			Sample Date	09/23/2014	09/23/2014	09/24/2014	07/09/2015	07/10/2015	09/12/2017	09/13/2017	02/26/2007	02/27/2007	08/20/2007	08/21/2007	02/19/2008	02/20/2008
			Field Sample ID	D0923141	M253B3	M253B3X	M253B4	M253B4X	M253C1	M253C1X	M254A1	M254A1X	M254A2	M254A2X	M254A3	M254A3X
			SDG	CS160	CS160	CS160	CS259	CS259	CS602	CS602	1027184	1027184	1052568	1052568	1078319	1078319
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.31	0.31	0.98	-	-0.19	-	5.83	-	-	-	-	4.61	-
DO	mg/L	N	NS	9.22	9.22	8.44	-	7.86	-	8.18	-	-	-	-	0	-
ORP	millivolts	N	NS	36	36	10	-	-75	-	-23	-	-	-	-	-116	-
pH	pH Units	N	NS	6.07	6.07	5.28	-	5.94	-	6.14	-	-	-	-	6.84	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	232000	-	206000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	105000	-	282000	-	245000	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	700U	-	1700U	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	105000	-	282000	-	245000	-	-	-	-	-	-
Arsenic	ug/L	N	3	571	504	-	436	-	437	-	12.0J	-	59.8	-	11.9J	-
Arsenic	ug/L	Y	3	602	609	-	483	-	457	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	-	0.5U	-	0.5U	-	0.5U	-	17	-	46	-	36
Iron	ug/L	N	300	225000	246000	-	228000	-	330000	-	-	-	-	-	-	-
Iron	ug/L	Y	300	231000	230000	-	232000	-	326000	-	40500	-	53200	-	34100	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	47200	-	37300	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	200U	-	40U	-	40U	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	40U	-	40U
Sulfate (SO4)	ug/L	N	250000	-	-	2420000	-	2080000	-	1840000	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	600U	-	5100	-	700U	-	-	-	25000U	-	25000U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	530U	-	3300

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254
			Sample Date	09/29/2008	09/30/2008	03/05/2009	03/06/2009	10/06/2009	10/07/2009	03/17/2010	03/18/2010	08/18/2010	08/19/2010	04/27/2011	04/28/2011	05/10/2012
			Field Sample ID	M254A4	M254A4X	M254A5	M254A5X	M254A6	M254A6X	M254A7	M254A7X	M254A8	M254A8X	M254A9	M254A9X	M254B1
			SDG	1112628	1112628	1135061	1135061	1165407	1165407	RFS34	RFS34	RFS64	RFS64	RFT14	RFT14	RFU56
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.47	-	5.65	-	5.65	-	3.45	-	5.32	5.37	4.28	4.59	5.04
DO	mg/L	N	NS	0	-	0	-	0.24	-	6.33	-	1.86	0	-	-	-
ORP	millivolts	N	NS	-124	-	-95	-	-141	-	-107	-	-101	0	-	-	-
pH	pH Units	N	NS	6.55	-	6.48	-	6.01	-	6.42	-	6.4	0	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	206000	-	849000	-	241000	-	198000	-	217000	-	186000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	31.3	-	10.0U	-	24.4	-	28.1	-	21.2	-	9.8U	-	15.5J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	68	-	0.5U	-	7	-	9	-	4J	-	17	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	32400	-	38000	-	43500	-	37100	-	31000	-	41300	-	-
Methane	ug/L	N	NS	31100	-	37800	-	43000	-	31100	-	30600	-	39300	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	40U	-	400U	-	40U	-	40U	-	40U	-	40U	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	10000U	-	98300	-	25000U	-	25000U	-	12500U	-	25000U	-
Sulfide	ug/L	Y	NS	-	1100U	-	2300	-	530U	-	530U	-	530U	-	1100U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254	MW-254
			Sample Date	05/10/2012	05/30/2013	05/31/2013	09/24/2014	09/25/2014	12/16/2015	12/17/2015	05/26/2016	05/27/2016	09/20/2016	09/20/2016	12/15/2016	12/15/2016
			Field Sample ID	M254B1X	M254B2	M254B2X	M254B3	M254B3X	M254B4	M254B4X	M254B5	M254B5X	M254B6	M254B6X	M254B7	M254B7X
			SDG	RFU56	RFZ73	RFZ73	CS161	CS161	CS331	CS331	CS407	CS407	CQ304	CQ304	CQ489	CQ489
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.04	5.33	5.43	5.88	5.82	-	5.82	-	5.73	5.8	5.8	5.62	5.62
DO	mg/L	N	NS	-	2.76	-	0.43	-	-	2.23	-	2.19	0.57	0.57	0.98	0.98
ORP	millivolts	N	NS	-	-85	-	191	-	-	-92	-	457	-37.5	-37.5	-58.8	-58.8
pH	pH Units	N	NS	-	6.62	-	6.35	-	-	6.95	-	6.29	6.15	6.15	6.68	6.68
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	143000	-	231000	-	210000	-	231000	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	700U	-	700U	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	143000	-	231000	-	210000	-	231000	-	-	-	-
Arsenic	ug/L	N	3	-	11.2	-	15.5	-	17.0	-	17.4	-	21.2	-	19.4	-
Arsenic	ug/L	Y	3	-	9.8	-	15.3	-	14.9	-	12.1	-	19.2	-	20.4	-
Benzene	ug/L	N	1	4J	-	3J	-	2	-	3	-	3	-	2	-	3
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	38500	-	32800	-	33800	-	41000	-	37200	-	34600	-
Methane	ug/L	N	NS	-	36400	-	31900	-	34000	-	38100	-	36900	-	34600	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	40U	-	40U	-	40U	-	40U	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	10000U	-	10000U	-	10000U	-	12500U	-	1500U	-	3900J
Sulfide	ug/L	Y	NS	-	-	600U	-	600U	-	680U	-	700U	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-254	MW-254	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255
			Sample Date	05/31/2017	06/01/2017	02/08/2007	02/09/2007	08/20/2007	08/21/2007	11/14/2007	11/15/2007	02/19/2008	02/20/2008	09/11/2008	09/12/2008	03/05/2009
			Field Sample ID	M254B8	M254B8X	M255A1	M255A1X	M255A2	M255A2X	M255A3	M255A3X	M255A4	M255A4X	M255A5	M255A5X	M255A6
			SDG	CS565	CS565	1025114	1025114	1052568	1052568	1065827	1065827	1078319	1078319	1109940	1109940	1135061
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	4.4	-	-	8.13	-	-	-	8.31	-	6.8	-	7.79
DO	mg/L	N	NS	-	1.8	-	-	0.27	-	-	-	1.34	-	0	-	1.97
ORP	millivolts	N	NS	-	-75	-	-	-138	-	-	-	-185	-	-256	-	-110
pH	pH Units	N	NS	-	7.09	-	-	6.76	-	-	-	6.93	-	6.77	-	6.44
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	1450000	-	1480000	-	1440000	-	1380000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	229000	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	1700U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	229000	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	15.7	-	10U	-	10.1J	-	10.0U	-	10.0U	-	10.2U	-	-
Arsenic	ug/L	Y	3	15.6	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	8	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	-	17100	-	14200	-	10200	-	8310	-	2420	-	1350
Iron	ug/L	Y	300	34600	-	-	-	12100	-	-	-	7240	-	1910	-	738
Methane	ug/L	N	NS	34300	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	40U	-	400U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	40U	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	302000	-	361000	-	295000	-	254000	-
Sulfide	ug/L	N	NS	-	10000U	-	-	-	1200J	-	530U	-	530U	-	530U	-
Sulfide	ug/L	Y	NS	-	700U	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255	MW-255	MW-256
			Sample Date	03/06/2009	09/23/2009	09/24/2009	02/17/2010	02/18/2010	08/18/2010	08/19/2010	04/06/2011	04/07/2011	06/14/2012	05/31/2013	09/24/2014	02/08/2007
			Field Sample ID	M255A6X	M255A7	M255A7X	M255A8	M255A8X	M255A9	M255A9X	M255B1	M255B1X	M255B2X	M255B3X	M255B4X	M256A1
			SDG	1135061	1163395	1163395	1183032	1183032	RFS64	RFS64	RFT05	RFT05	RFU83	RFZ73	CS160	1025114
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	7.05	-	7.24	-	7.88	8.46	0.71	9.91	0.76	-	0.54	-
DO	mg/L	N	NS	-	5.75	-	3.61	-	0.51	0	12.84	7.99	6.56	17.65	7.39	-
ORP	millivolts	N	NS	-	-256	-	-230	-	-209	-167	-84	13	-151	-175	-278	-
pH	pH Units	N	NS	-	6.62	-	6.60	-	6.94	6.30	6.03	8.06	7.50	6.63	6.24	-
Alkalinity to pH 4.5	ug/L	N	NS	174000	-	1450000	-	1500000	-	803000	-	775000	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	72.5
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	11	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	-
Iron	ug/L	N	300	-	94.4J	-	2940	-	20100	-	13100	-	-	-	-	34100
Iron	ug/L	Y	300	-	174J	-	2390	-	13300	-	14700	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	800U	-	40U	-	200U	-	220	-	40U	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	10000U	-	364000	-	409000	-	140000	-	308000	-	-	-	-
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	5100	-	4600	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256
			Sample Date	02/09/2007	08/20/2007	08/21/2007	02/19/2008	02/20/2008	09/11/2008	09/12/2008	03/05/2009	03/06/2009	09/22/2009	09/23/2009	03/02/2010	03/03/2010
			Field Sample ID	M256A1X	M256A2	M256A2X	M256A3	M256A3X	M256A4	M256A4X	M256A5	M256A5X	M256A6	M256A6X	M256A7	M256A7X
			SDG	1025114	1052568	1052568	1078319	1078319	1109940	1109940	1135061	1135061	1163168	1163168	RFS32	RFS32
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	6.41	-	6.2	-	7.36	-	6.89	-	5.7	-
DO	mg/L	N	NS	-	-	-	0.86	-	0	-	0	-	7.31	-	0	-
ORP	millivolts	N	NS	-	-	-	-95	-	-119	-	-89	-	-107	-	-72	-
pH	pH Units	N	NS	-	-	-	6.95	-	6.73	-	6.74	-	6.52	-	6.31	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	476000	-	477000	-	443000	-	480000	-	445000	-	506000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	159	-	193	-	228	-	104	-	169	-	107	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	9	-	7	-	4J	-	6	-	2J	-	3J	-	2J
Iron	ug/L	N	300	-	30000	-	47100	-	33500	-	32000	-	27700	-	32900	-
Iron	ug/L	Y	300	-	29600	-	30600	-	28900	-	27800	-	25700	-	25700	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	40U	-	40U	-	800U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	25000U	-	125000U	-	25000U	-	25000U	-	25000U	-	10000U
Sulfide	ug/L	N	NS	-	-	2600	-	3500	-	530U	-	2700	-	530U	-	880J
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256
			Sample Date	09/02/2010	09/03/2010	03/30/2011	03/31/2011	05/01/2012	05/02/2012	05/29/2013	05/30/2013	08/15/2013	06/26/2014	06/26/2014	06/27/2014	06/27/2014
			Field Sample ID	M256A8	M256A8X	M256A9	M256A9X	M256B1	M256B1X	M256B2	M256B2X	M256B3	D0626141	M256B5	D0627141	M256B5X
			SDG	RFS66	RFS66	RFT04	RFT04	RFU51	RFU51	RFZ71	RFZ71	CP074	CS119	CS119	CS119	CS119
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	FD	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.92	6.97	0.72	-	1.51	1.97	1.99	-	2.92	1.03	1.03	0.27	0.27
DO	mg/L	N	NS	1.75	0	6.14	-	7	7.03	6.95	-	6.61	6.38	6.38	6.44	6.44
ORP	millivolts	N	NS	-113	-137	-59	-	-68	-93	-140	-	-83.1	-90	-90	-99	-99
pH	pH Units	N	NS	7.30	6.42	6.74	-	6.89	6.61	6.62	-	6.74	6.68	6.68	6.60	6.60
Alkalinity to pH 4.5	ug/L	N	NS	-	434000	-	488000	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	398000	413000	-	-	123000	349000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	700U	-	-	-	700U	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	398000	413000	-	-	123000	349000
Arsenic	ug/L	N	3	154	-	105	-	114	-	92.1	-	130	152	134	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	85.3	-	131	133	127	-	-
Benzene	ug/L	N	1	-	2J	-	2J	-	1J	-	2J	1J	-	-	3	3
Iron	ug/L	N	300	24800	-	28800	-	-	-	31600	-	31200	28100	26900	-	-
Iron	ug/L	Y	300	24400	-	28000	-	-	-	30000	-	-	27400	26500	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	17000	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	-	-	40U	40U	-	-	40U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	25000U	-	12500U	-	-	-	12500U	1500U	-	-	12500U	12500U
Sulfide	ug/L	N	NS	-	530U	-	800J	-	-	-	1000J	600U	-	-	1200U	2400U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-256	MW-257	MW-257
			Sample Date	03/04/2015	03/06/2015	07/02/2015	07/07/2015	07/08/2015	08/27/2015	10/27/2015	11/02/2017	02/19/2018	02/20/2018	03/29/2018	02/08/2007	02/09/2007
			Field Sample ID	D03041515	M256B6	M256B7	M256B8	M256B8X	M256B9	M256C1	M256C8	M256C9	M256C9X	M256D1	M257A1	M257A1X
			SDG	CP660	CP661	CP767	CS258	CS258	CP829	CP909	CQ863	CS649	CS649	CR012	1025114	1025114
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	2.25	-	1.38	-0.08	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	7.05	-	NM	6.11	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-72.1	-	-103	-57	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	5.40	-	6.61	6.42	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	387000	186000	-	151000	372000	324000	682000	-	500000	591000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	700U	-	-	-	-	1700U	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	387000	186000	-	151000	372000	324000	682000	-	500000	591000	-	-
Arsenic	ug/L	N	3	183	70.9	125	78.3	-	163	74.3	40.4	21.1	-	20.3	360	-
Arsenic	ug/L	Y	3	-	68.1	125	81.6	-	144	71.1	38.6	20.1	-	19	-	-
Benzene	ug/L	N	1	-	-	-	-	2	-	-	-	-	2	-	-	0.5U
Iron	ug/L	N	300	42700	24700	11300	11700	-	24700	14500	4800	8090	-	7570	63500	-
Iron	ug/L	Y	300	-	24200	10700	11500	-	19600	14500	4850	7400	-	8900	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	250U	-	40U	250U	-	250U	-	40U	250U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	1500U	24500	-	13500J	1500U	1500U	32300	-	4000U	70800	-	-
Sulfide	ug/L	N	NS	-	680U	680U	-	2700U	680U	680U	700U	-	700U	700U	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257
			Sample Date	08/22/2007	08/23/2007	02/25/2008	02/26/2008	09/11/2008	09/12/2008	03/05/2009	03/06/2009	09/25/2009	09/25/2009	02/18/2010	02/19/2010	09/02/2010
			Field Sample ID	M257A2	M257A2X	M257A3	M257A3X	M257A4	M257A4X	M257A5	M257A5X	M257A6	M257A6X	M257A7	M257A7X	M257A8
			SDG	1053010	1053010	1079047	1079047	1109940	1109940	1135061	1135061	1163612	1163612	1183211	1183211	RFS66
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	6.92	-	6.37	-	7.9	-	7.28	7.28	7.4	-	7.47
DO	mg/L	N	NS	-	-	0	-	0	-	0	-	5.57	5.57	0	-	1.33
ORP	millivolts	N	NS	-	-	-149	-	-168	-	-145	-	-137	-137	-120	-	-151
pH	pH Units	N	NS	-	-	7.16	-	7.20	-	6.97	-	6.48	6.48	6.78	-	7.63
Alkalinity to pH 4.5	ug/L	N	NS	-	277000	-	325000	-	293000	-	317000	-	306000	-	205000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	405	-	342	-	436	-	678	-	462	-	497	-	369
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	65300	-	70500	-	58100	-	77700	-	57400	-	58800	-	43800
Iron	ug/L	Y	300	62500	-	68200	-	58300	-	56400	-	53200	-	41900	-	44800
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	800U	-	400U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	25000U	-	50000U	-	25000U	-	50000U	-	50000U	-	25000U	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	4200U	-	530U	-	530U	-	2100U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257
			Sample Date	09/03/2010	03/30/2011	03/31/2011	10/24/2011	10/25/2011	05/01/2012	05/07/2012	09/06/2012	09/07/2012	05/29/2013	05/30/2013	08/15/2013	09/24/2013
			Field Sample ID	M257A8X	M257A9	M257A9X	M257B1	M257B1X	M257B2	M257B2X	M257B3	M257B3X	M257B4	M257B4X	M257B5	D09241310
			SDG	RFS66	RFT04	RFT04	RFT81	RFT81	RFU51	RFU51	RFV38	RFV38	RFZ71	RFZ71	CP074	CP114
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.58	0.66	0.63	5.04	0.66	1.46	-	2.01	1.72	1.77	-	1.04	-
DO	mg/L	N	NS	0.42	6.51	6.52	6.5	6.41	7.49	-	7.31	7.35	7.27	-	7.07	-
ORP	millivolts	N	NS	-191	-99	-123	-32	-163	-89	-	-75	-128	-149	-	-129.9	-
pH	pH Units	N	NS	6.81	7.02	7.04	7.27	6.94	7.01	-	6.88	6.68	6.85	-	6.87	-
Alkalinity to pH 4.5	ug/L	N	NS	279000	-	277000	-	257000	-	233000	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	700U	-	700U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	263000	-	176000	209000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	700U	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	263000	-	176000	209000	-
Arsenic	ug/L	N	3	-	242	-	302	-	257	-	400	-	296	-	306	330J-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	382	-	289	-	300	317J-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-
Iron	ug/L	N	300	-	47800	-	48800	-	43400	-	38000	-	82100	-	80300	-
Iron	ug/L	Y	300	-	47500	-	48100	-	42800	-	38600	-	81800	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	4200	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	25000U	-	25000U	-	25000U	-	12500U	-	25000U	-	25000U	1500U	-
Sulfide	ug/L	N	NS	530U	-	1100U	-	1100U	-	600U	-	2400U	-	1200U	600U	54U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257
			Sample Date	09/24/2013	10/03/2013	10/04/2013	06/18/2014	06/19/2014	08/15/2014	08/15/2014	08/15/2014	08/15/2014	08/15/2014	11/05/2014	11/06/2014	11/11/2014
			Field Sample ID	M257B6	M257B7	M257B7X	M257B8	M257B8X	D08151414	D08151414	M257B9	M257B9	M257B9X	M257C1	M257C1X	D11111415
			SDG	CP114	CS023	CS023	CS114	CS114	CP464	CP465	CP464	CP465	CP464	CS182	CS182	CP587
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	FD	FD	REG	REG	REG	REG	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	1.9	-	1.02	0.14	0.6	0.6	0.6	0.6	0.6	0.08	0.32	1.41
DO	mg/L	N	NS	-	7.91	-	6.49	6.55	7.07	7.07	7.07	7.07	7.07	7.28	7.21	7.33
ORP	millivolts	N	NS	-	-352	-	-96	-136	-154	-154	-154	-154	-154	-129	-136	-114.7
pH	pH Units	N	NS	-	6.87	-	6.69	6.81	6.70	6.70	6.70	6.70	6.70	6.95	7.04	6.89
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	249000	-	181000	-	-	-	-	-	-	141000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	700U	-	-	-	-	-	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	249000	-	181000	-	-	-	-	270000	-	141000	-
Arsenic	ug/L	N	3	331J-	333	-	259	-	303	-	290	-	-	289	-	271
Arsenic	ug/L	Y	3	321J-	320	-	255	-	-	300	-	288	-	272	-	-
Benzene	ug/L	N	1	-	-	0.5U	-	0.5U	-	-	-	-	-	-	0.5U	-
Iron	ug/L	N	300	-	59400	-	33300	-	43700	-	44000	-	-	27900	-	33700
Iron	ug/L	Y	300	-	58600	-	34200	-	-	42800	-	42900	-	26800	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	4600	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	40U	-	-	-	-	250U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	12500U	-	25000U	-	-	-	-	2600J	-	34100J	-
Sulfide	ug/L	N	NS	54U	-	600U	-	600U	-	-	-	-	-	-	600U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	83J	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257	MW-257
			Sample Date	11/11/2014	12/22/2014	01/22/2015	01/22/2015	03/04/2015	07/01/2015	07/01/2015	07/07/2015	07/08/2015	10/30/2017	02/19/2018	02/20/2018	03/26/2018
			Field Sample ID	M257C2	M257C6	D01221515	M257C7	M257C8	D07011515	M257C9	M257D1	M257D1X	M257E1	M257E2	M257E2X	M257E3
			SDG	CP587	CP629	CP653	CP653	CP660	CP766	CP766	CS258	CS258	CQ851	CS649	CS649	CR007
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.41	-	0.75	0.75	1.06	-	-	1.8	0.13	-	-	-	-
DO	mg/L	N	NS	7.33	-	7.07	7.07	7.49	-	-	NM	6.74	-	-	-	-
ORP	millivolts	N	NS	-114.7	-	-153.3	-153.3	-120.7	-	-	-125	-84	-	-	-	-
pH	pH Units	N	NS	6.89	-	7.03	7.03	7.07	-	-	6.70	6.40	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	268000	-	247000	273000	-	220000	-	205000	239000	-	99400	277000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	700U	-	-	1700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	268000	-	247000	273000	-	220000	-	205000	239000	-	99400	277000
Arsenic	ug/L	N	3	265	243	206	199	179	237	237	249	-	220	119	-	138
Arsenic	ug/L	Y	3	265	244	-	186	176	-	220	234	-	199	105	-	145
Benzene	ug/L	N	1	-	-	-	-	-	-	-	-	0.5U	-	-	0.5U	-
Iron	ug/L	N	300	34500	45800	46100	46200	43100	23000	23800	29100	-	24400	22700	-	34000
Iron	ug/L	Y	300	32400	44900	-	45000	40600	-	23300	29500	-	23000	20600	-	38300
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	250U	-	140	250U	-	40U	250U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	17200	5300	-	5000J	1500U	-	18600	-	25000U	5100	-	21400	4300J
Sulfide	ug/L	N	NS	600U	600U	-	600U	680U	-	680U	-	2700U	700U	-	700U	700U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270
			Sample Date	02/26/2007	02/27/2007	08/29/2007	08/30/2007	02/04/2008	02/05/2008	09/16/2008	09/17/2008	05/14/2009	09/01/2009	12/08/2009	04/09/2010	07/08/2010
			Field Sample ID	M270A1	M270A1X	M270A2	M270A2X	M270A3	M270A3X	M270A4	M270A4X	M270A5	M270A6	M270A7	M270A8	M270A9
			SDG	1027183	1027183	1054027	1054027	1076059	1076059	1110669	1110669	1144894	1160143	1174313	GWC54	RFS54
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	12.65	-	12.05	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	0.38	-	0	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-84	-	-93	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	6.57	-	6.41	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	433000	-	432000	-	496000	-	451000	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	207	-	241	-	-	-	-	-	153
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	310	-	330	-	300	-	340	210	150	690	280	-
Iron	ug/L	N	300	70900	-	72700	-	91800	-	72000	-	-	-	-	-	-
Iron	ug/L	Y	300	73800	-	70700	-	87000	-	72800	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	50000U	-	5000U	-	12500U	-	12500U	-	-	-	-	-
Sulfide	ug/L	N	NS	-	1100U	-	1000J	-	530U	-	530U	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270
			Sample Date	07/09/2010	10/04/2010	10/28/2010	02/15/2011	02/17/2011	05/12/2011	08/08/2011	08/09/2011	08/07/2012	12/20/2012	03/28/2013	09/27/2013
			Field Sample ID	M270B1X-100709	M270B2	M270B3	M270B4	M270B4X	M270B5	M270B6	M270B6X	M270B7	M270B8X	M270B9	M270C1
			SDG	RFS52	RFS70	RFS76	RFS86	RFS90	RFT20	RFT53	RFT52	RFV25	RFX26	RFY40	CP122
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	12.15	-	12.68	-	-	0.99	0.79	11.54	1.11	8.63	2.71	-
DO	mg/L	N	NS	2.46	-	0	-	-	NM	12.08	12.41	12.9	14.93	14.2	-
ORP	millivolts	N	NS	-76	-	0	-	-	-91	-76	-90	-111	-80.1	-94	-
pH	pH Units	N	NS	6.60	-	0.00	-	-	6.53	6.46	6.74	13.39	5.98	6.48	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	347000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	347000	-
Arsenic	ug/L	N	3	-	-	201	153	-	-	146	-	99.5	-	80.6	95.6J+
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	81.2	95.0
Benzene	ug/L	N	1	230	810	-	-	330	310	-	1000	-	740	120	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	85900	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	790	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	10000U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	600U	58J
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270
			Sample Date	01/16/2014	02/24/2014	02/24/2014	02/24/2014	08/21/2014	09/17/2014	10/28/2014	01/29/2015	04/14/2015	07/08/2015	07/22/2015	07/22/2015	10/22/2015
			Field Sample ID	M270C2X	M270C3	M270C3X	M270C3X	M270C4X	M270C5X	M270C6X	M270C7X	M270C8X	M270C9X	M270D1	M270D1X	M270D2X
			SDG	CP261	CS066	CS065	CS066	CP478	CP508	CP567	CP658	CP683	CP773	CS266	CS266	CP898
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0	2.82	2.82	2.82	0.07	-	-	0.52	-	0	-	-	-
DO	mg/L	N	NS	12.54	11.36	11.36	11.36	16.03	-	-	12.35	-	14.05	12.97	12.97	-
ORP	millivolts	N	NS	-46	-124	-124	-124	-60.8	-	-	-39.5	-	-34	-83	-83	-
pH	pH Units	N	NS	6.25	6.34	6.34	6.34	6.16	-	-	6.22	-	6.24	6.27	6.27	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	474000	-	-	-	-	-	-	-	299000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	700U	-	-	-	-	-	-	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	474000	-	-	-	-	-	-	-	299000	-
Arsenic	ug/L	N	3	-	84.4	-	-	-	-	-	-	-	-	99.1	-	-
Arsenic	ug/L	Y	3	-	84.6	-	-	-	-	-	-	-	-	93.1	-	-
Benzene	ug/L	N	1	38	-	-	82	1900J	1300J	86	25	70	200J-	-	8	140
Iron	ug/L	N	300	-	86800	-	-	-	-	-	-	-	-	83300	-	-
Iron	ug/L	Y	300	-	84100	-	-	-	-	-	-	-	-	83400	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	-	-	-	-	-	-	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	10000U	-	-	-	-	-	-	-	25000U	-
Sulfide	ug/L	N	NS	-	-	-	600U	-	-	-	-	-	-	-	680U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-270	MW-270	MW-270	MW-270	MW-270	MW-270	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271
			Sample Date	10/30/2017	11/13/2017	11/14/2017	01/16/2018	01/16/2018	04/05/2018	02/26/2007	02/27/2007	08/29/2007	08/30/2007	02/04/2008	02/05/2008	09/18/2008
			Field Sample ID	M270E1X	M270E2	M270E2X	M270E3	M270E3X	M270E4X	M271A1	M271A1X	M271A2	M271A2X	M271A3	M271A3X	M271A4
			SDG	CQ852	CS622	CS622	CQ942	CQ942	CR021	1027183	1027183	1054027	1054027	1076059	1076059	1111172
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.2	-	1.91	0.75	0.75	-	-	-	-	-	12.72	-	12.2
DO	mg/L	N	NS	11	-	11.75	12.78	12.78	-	-	-	-	-	0	-	0
ORP	millivolts	N	NS	11	-	153	-112.1	-112.1	-	-	-	-	-	-121	-	-136
pH	pH Units	N	NS	6.12	-	0.91	6.37	6.37	-	-	-	-	-	7.05	-	6.99
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	411000	-	460000	-	329000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	184000	-	139000	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	1700U	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	184000	-	139000	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	62.1	-	80.6	-	-	-	-	-	-	10.0U	-	10.2U
Arsenic	ug/L	Y	3	-	53.8	-	81.7	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	2	-	-	-	4	2	-	4100	-	6300	-	6500	-
Iron	ug/L	N	300	-	54400	-	77400	-	-	8490	-	23400	-	33200	-	26400
Iron	ug/L	Y	300	-	48500	-	78900	-	-	4330	-	24800	-	32000	-	24600
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	250U	-	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1600J	-	10000U	-	2500J	-	-	83500J	-	57100	-	50000U	-
Sulfide	ug/L	N	NS	-	-	700U	-	700U	-	-	1100U	-	530U	-	3300	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271
			Sample Date	09/19/2008	05/11/2009	09/01/2009	09/01/2009	10/01/2009	12/04/2009	04/09/2010	07/09/2010	10/04/2010	02/17/2011	05/12/2011	08/09/2011
			Field Sample ID	M271A4X	M271A5X	M271A6	M271A6	M271A6X	M271A8	M271A9	M271B2X-100709	M271B3	M271B5X	M271B6	M271B7X
			SDG	1111172	1144240	1160143	1164446	1164446	1173883	GWC54	RFS52	RFS70	RFS90	RFT20	RFT52
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	13.1	-	-	-	-	-	12.82	-	-	0.26	1.7
DO	mg/L	N	NS	-	1.86	-	-	-	-	-	1.88	-	-	13.97	13.26
ORP	millivolts	N	NS	-	-148	-	-	-	-	-	-88	-	-	-99	-85
pH	pH Units	N	NS	-	5.95	-	-	-	-	-	6.67	-	-	6.84	6.82
Alkalinity to pH 4.5	ug/L	N	NS	359000	-	-	-	342000	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	-	-	460U	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	4000	4600	3600	-	1900	3100	3200	2600	3300	3600	3900	4000
Iron	ug/L	N	300	-	-	-	28100	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	24900	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	40U	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	25000U	-	-	-	25000U	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	530U	-	-	-	530U	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271	MW-271
			Sample Date	12/20/2012	03/28/2013	01/17/2014	02/24/2014	08/20/2014	09/18/2014	10/21/2014	01/20/2015	04/13/2015	07/08/2015	10/21/2015	10/30/2017	01/25/2018
			Field Sample ID	M271B9X	M271C1	M271C2X	M271C3X	M271C4X	M271C5X	M271C6X	M271C7X	M271C8X	M271C9X	M271D1X	M271D8X	M271D9
			SDG	RFX26	RFY40	CP262	CS066	CP475	CP511	CP552	CP649	CP682	CP773	CP897	CQ852	CQ951
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.52	0.71	0	1.83	1.93	-	2.71	3.3	0.79	0.07	-	2	0.68
DO	mg/L	N	NS	16.9	17.35	17.3	13.23	16.85	-	15.7	15.57	16.57	17.4	-	11.6	16.32
ORP	millivolts	N	NS	-91.3	-147	-62.5	-130	-55.7	-	-22	-148	-80	-65	-	-17	-20.6
pH	pH Units	N	NS	6.36	6.73	6.34	6.58	6.39	-	6.38	0.22	6.49	6.48	-	6.14	6.87
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	1.9J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	1.4J
Benzene	ug/L	N	1	4400	4000	130	4800	1200J	1400	660	510	300	1500J-	3000	1400	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	13900
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	1500U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-271	MW-271	MW-272	MW-272	MW-272	MW-272	MW-272	MW-272	MW-272	MW-272	MW-272	MW-272	MW-272
			Sample Date	01/25/2018	04/05/2018	02/26/2007	02/27/2007	09/06/2007	09/07/2007	02/14/2008	02/15/2008	08/27/2008	08/28/2008	03/26/2009	03/27/2009	07/28/2009
			Field Sample ID	M271D9X	M271E1X	M272A1	M272A1X	M272A2	M272A2X	M272A3	M272A3X	M272A4	M272A4X	M272A5	M272A5X	M272A6
			SDG	CQ951	CR021	1027183	1027183	1055127	1055127	1077812	1077812	1107601	1107601	1138048	1138048	1163942
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.68	-	-	-	-	-	2.82	-	7.03	-	-	-	-
DO	mg/L	N	NS	16.32	-	-	-	-	-	3.87	-	0	-	-	-	-
ORP	millivolts	N	NS	-20.6	-	-	-	-	-	98	-	-122	-	-	-	-
pH	pH Units	N	NS	6.87	-	-	-	-	-	6.74	-	6.78	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	221000	-	427000	-	172000	-	363000	-	440000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	208000	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	208000	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	13.1J	-	50.2	-	65.8	-	73.1
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	340	-	9500	-	7600	-	480	-	270	-	490	-
Iron	ug/L	N	300	-	-	23800	-	46000	-	9500	-	16300	-	49100	-	69500
Iron	ug/L	Y	300	-	-	27000	-	43800	-	125J	-	4010	-	46000	-	59100
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	250U	-	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1500U	-	-	82600J	-	5000U	-	7100	-	10000U	-	2500U	-
Sulfide	ug/L	N	NS	5600U	-	-	2100U	-	530U	-	530U	-	530U	-	1000J	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-272	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275
			Sample Date	09/29/2009	10/01/2007	11/19/2007	11/20/2007	01/30/2008	01/31/2008	10/01/2008	10/01/2008	05/12/2009	08/31/2009	12/03/2009	04/08/2010
			Field Sample ID	M272A6X	M275A1	M275A2	M275A2X	M275A3	M275A3X	M275A4	M275A4X	M275A5	M275A6	M275A7	M275A9
			SDG	1163942	1058818	1066488	1066488	1075579	1075579	1112904	1112904	1144454	1160143	1173658	GWC54
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	9.04	-	-	-	-	-	-	8.74
DO	mg/L	N	NS	-	-	-	-	0.79	-	-	-	-	-	-	4.72
ORP	millivolts	N	NS	-	-	-	-	31	-	-	-	-	-	-	-71
pH	pH Units	N	NS	-	-	-	-	8.79	-	-	-	-	-	-	6.97
Alkalinity to pH 4.5	ug/L	N	NS	543000	-	-	148000	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	-	26100	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	10.0U	-	10.0U	-	10.2U	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1700	7	-	12	-	260	-	180	90	240	62	810
Iron	ug/L	N	300	-	-	537	-	823	-	3830	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	520	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	5000U	-	-	79200	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	530U	-	-	740J	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275	MW-275
			Sample Date	07/08/2010	10/05/2010	02/15/2011	05/11/2011	08/10/2011	12/19/2012	08/13/2013	10/07/2014	11/22/2017	11/22/2017	01/31/2018	02/01/2018
			Field Sample ID	M275B1X-100708	M275B2	M275B3X	M275B4	M275B5X	M275B6X	M275B7X	M275B8X	M275C3	M275C3X	M275C4	M275C4X
			SDG	RFS52	RFS70	RFS87	RFT20	RFT55	RFX25	RFB88	CS166	CQ901	CQ901	CQ958	CQ960
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.15	-	-	0	1.22	4.32	-	0.77	-	-	-	-
DO	mg/L	N	NS	3.57	-	-	8.75	8.79	9.1	-	8.88	-	-	-	-
ORP	millivolts	N	NS	-102	-	-	-72	-73	-68.3	-	243	-	-	-	-
pH	pH Units	N	NS	5.75	-	-	7.03	7.06	6.62	-	6.91	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	2.5	-	3.6	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	2	-	2.9	-
Benzene	ug/L	N	1	230	940	1400	1500	990	570	210	49	-	37	-	82
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	2770	-	2610	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	2670	-	2300	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	7900	-	4800J
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276
			Sample Date	10/05/2007	11/27/2007	11/28/2007	01/28/2008	01/29/2008	09/18/2008	09/18/2008	04/13/2009	04/14/2009	10/08/2009	04/05/2010	04/05/2010	04/06/2010
			Field Sample ID	M276A1	M276A2	M276A2X	M276A3	M276A3X	M276A4	M276A4X	M276A6	M276A5X	M276A6X	M276A7	M276A7	M276A7X
			SDG	1059716	1067242	1067242	1075238	1075238	1110903	1110903	1140444	1140444	1165848	1165848	RFS37	RFS37
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	9.82	-	-	-	10.07	-	-	9.28	9.28	14.27
DO	mg/L	N	NS	-	-	-	0	-	-	-	0	-	-	0.11	0.11	3.81
ORP	millivolts	N	NS	-	-	-	-13	-	-	-	88	-	-	148	148	185
pH	pH Units	N	NS	-	-	-	8.00	-	-	-	5.94	-	-	6.71	6.71	6.54
Alkalinity to pH 4.5	ug/L	N	NS	-	-	1670000	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	460U	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	-	10.0U	-	10.5J	-	10.0U	-	-	10.3J	7.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	5U	-	0.5U	0.5U	-	-	0.5U
Iron	ug/L	N	300	-	1380	-	912	-	10100	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	9300J	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	2800	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276	MW-276	MW-277	MW-277	MW-277	MW-277
			Sample Date	09/07/2010	09/07/2010	05/09/2011	05/10/2011	06/19/2013	06/20/2013	09/15/2014	09/15/2014	09/16/2014	10/05/2007	11/14/2007	11/15/2007	02/06/2008
			Field Sample ID	M276A8	M276A8X	M276A9	M276A9X	M276B1	M276B1X	D0915141	M276B2	M276B2X	M277A1	M277A2	M277A2X	M277A3
			SDG	RFS66	RFS66	RFT19	RFT19	RFB13	RFB13	CS156	CS156	CS156	1059716	1065827	1065827	1076506
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.88	9.88	5.53	0	0.63	-0.55	1.41	1.41	-	-	-	-	7.4
DO	mg/L	N	NS	0	0	35.42	10.92	17.76	12.02	37.94	37.94	13.8	-	-	-	8.06
ORP	millivolts	N	NS	-161	-161	-95	-154	-152	-206	-317	-317	-	-	-	-	-77
pH	pH Units	N	NS	6.80	6.80	6.81	6.71	7.07	7.25	7.01	7.01	-	-	-	-	8.19
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	1200000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	1920000	-	-	1940000	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	700U	-	-	700U	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	1920000	-	-	1940000	-	-	-	-
Arsenic	ug/L	N	3	10J	-	9.8U	-	2.6	-	3.5	3.6	-	-	10.0U	-	10.0U
Arsenic	ug/L	Y	3	-	-	-	-	3.0	-	3.0	3.3	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	-	-	-	8360	-	10500	10700	-	-	1450	-	2210
Iron	ug/L	Y	300	-	-	-	-	7800	-	10500	10100	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	40U	-	-	40U	-	-	400U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	2500U	-	-	5000U	-	-	421000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	600U	-	-	600U	-	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-277	MW-277	MW-277	MW-277	MW-277	MW-277	MW-277	MW-277	MW-277	MW-277	MW-277	MW-277	MW-277
			Sample Date	02/07/2008	09/09/2008	09/10/2008	04/07/2009	04/08/2009	10/06/2009	10/07/2009	03/31/2010	03/31/2010	08/16/2010	08/17/2010	02/04/2011	02/04/2011
			Field Sample ID	M277A3X	M277A4	M277A4X	M277A5	M277A5X	M277A6	M277A6X	M277A7	M277A7X	M277A8	M277A8X	M277A9	M277A9X
			SDG	1076506	1109393	1109393	1139653	1139653	1165407	1165407	RFS36	RFS36	RFS64	RFS64	RFS83	RFS83
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	7.57	-	6.99	-	7.78	-	6.94	6.94	-	-	0.62	0.62
DO	mg/L	N	NS	-	0	-	0.76	-	4.2	-	2.63	2.63	-	-	138.4	138.4
ORP	millivolts	N	NS	-	-253	-	60	-	-10	-	-345	-345	-	-	-330	-330
pH	pH Units	N	NS	-	7.21	-	6.69	-	9.43	-	6.70	6.70	-	-	6.68	6.68
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.6J	-	10.0U	-	11.3J	-	11.9J	-	9.8U	-	9.8U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	743	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-277	MW-277	MW-277	MW-277	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282
			Sample Date	06/19/2013	06/20/2013	06/19/2014	06/20/2014	04/02/2008	04/21/2008	04/22/2008	09/22/2008	09/23/2008	10/29/2008	05/14/2009	08/31/2009	12/07/2009
			Field Sample ID	M277B1	M277B1X	M277B2	M277B2X	M282A1X	M282A2	M282A2X	M282A3	M282A3X	M282A4	M282A5	M282A6	M282A7
			SDG	RFB13	RFB13	CS115	CS115	1084470	1087622	1087622	1111596	1111596	1117434	1144894	1160143	1174313
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.66	-0.49	2.86	0.13	-	8.9	-	8.97	-	-	-	-	-
DO	mg/L	N	NS	13.22	8.07	14.75	7.73	-	0.33	-	0	-	-	-	-	-
ORP	millivolts	N	NS	-139	-294	-181	-300	-	-109	-	-78	-	-	-	-	-
pH	pH Units	N	NS	7.51	7.02	7.23	6.74	-	5.93	-	5.82	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	129000	-	173000	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	460U	-	460U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	187000	-	165000	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	187000	-	165000	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	11.5	-	21.8	-	-	13.7J	-	39.1	-	-	-	-	-
Arsenic	ug/L	Y	3	4.9	-	12.0	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	210	-	200	-	75	100	150	57	18
Iron	ug/L	N	300	9360	-	12600	-	-	51100	-	88700	-	-	-	-	-
Iron	ug/L	Y	300	43.0U	-	62.0J	-	-	46300	-	85700	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	810	-	860	-	-	40U	-	40U	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	22800	-	36300	-	-	15400	-	187000	-	-	-	-
Sulfide	ug/L	N	NS	-	630J	-	600U	-	-	530U	-	2000	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282
			Sample Date	04/09/2010	07/08/2010	10/05/2010	02/16/2011	05/11/2011	08/11/2011	12/18/2012	03/29/2013	01/13/2014	08/20/2014	09/17/2014	09/19/2014
			Field Sample ID	M282A9	M282B1X-100708	M282B2	M282B3X	M282B4	M282B5X	M282B6	M282B6X	M282B7X	M282B8X	M282B9X	M282C1
			SDG	GWC54	RFS52	RFS70	RFS89	RFT20	RFT57	RFX24	RFY43	CP258	CP475	CP508	CS158
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	9.42	-	-	0.2	1.85	0.9	-	0.94	7.23	-	0.46
DO	mg/L	N	NS	-	1.11	-	-	9.47	8.74	11.43	-	8.27	9.38	-	12.43
ORP	millivolts	N	NS	-	-97	-	-	-51	-61	-30	-	159.6	134.2	-	78
pH	pH Units	N	NS	-	5.55	-	-	6.77	6.18	6.01	-	4.93	5.39	-	5.86
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	49	13	11	34	8	5J	3J	1J	2J	0.8J	4	3
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-282	MW-283	MW-283	MW-283
			Sample Date	10/28/2014	01/22/2015	04/14/2015	07/09/2015	10/15/2015	11/01/2017	11/17/2017	02/01/2018	02/01/2018	04/06/2018	04/02/2008	04/21/2008	04/22/2008
			Field Sample ID	M282C2X	M282C3X	M282C4X	M282C5X	M282C6X	M282D2X	M282D3	M282D4	M282D4X	M282D5X	M283A1X	M283A2	M283A2X
			SDG	CP567	CP654	CP683	CP774	CP887	CQ861	CQ895	CQ960	CQ960	CR023	1084470	1087622	1087622
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	MW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.25	4.35	-	0	-	-	0.75	-	-	-	-	8.66	-
DO	mg/L	N	NS	10.59	10.5	-	9.85	-	-	5.56	-	-	-	-	0.46	-
ORP	millivolts	N	NS	-54	38.4	-	179	-	-	-58.2	-	-	-	-	-115	-
pH	pH Units	N	NS	6.63	6.20	-	5.35	-	-	4.98	-	-	-	-	8.96	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	114000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	14100
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	2.5	2.1	-	-	-	10.4J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	2.1	1.2J	-	-	-	-	-
Benzene	ug/L	N	1	3	1	3	1	17	1	-	-	9	27	290	-	1200
Iron	ug/L	N	300	-	-	-	-	-	-	12700	14600	-	-	-	162J	-
Iron	ug/L	Y	300	-	-	-	-	-	-	11600	14900	-	-	-	52.2U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	380
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	49700	-	-	19700	-	-	-	38400
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283
			Sample Date	09/22/2008	09/23/2008	05/14/2009	08/31/2009	08/31/2009	12/02/2009	12/02/2009	04/08/2010	04/08/2010	07/08/2010	07/08/2010	10/05/2010
			Field Sample ID	M283A3	M283A3X	M283A4	D0831093	M283A5	D1202093	M283A6	D0408103	M283A8	D0708103-100708	M283A9X-100708	D1005103
			SDG	1111596	1111596	1144894	1160143	1160143	1173449	1173449	GWC54	GWC54	RFS52	RFS52	RFS70
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	FD	REG	FD	REG	FD	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.95	-	-	-	-	-	-	8.31	8.31	8.71	8.71	-
DO	mg/L	N	NS	0	-	-	-	-	-	-	9.47	9.47	0.95	0.95	-
ORP	millivolts	N	NS	-97	-	-	-	-	-	-	217	217	-125	-125	-
pH	pH Units	N	NS	9.26	-	-	-	-	-	-	3.98	3.98	5.95	5.95	-
Alkalinity to pH 4.5	ug/L	N	NS	-	178000	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	15800	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	21.5	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	8100	1100	1300	1300	10000	9300	11000	7300	8900	9000	8400
Iron	ug/L	N	300	236	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	52.2U	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	69100	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	530U	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283
			Sample Date	10/05/2010	02/15/2011	02/15/2011	05/11/2011	05/11/2011	08/10/2011	08/10/2011	12/20/2012	04/01/2013	01/13/2014	08/21/2014	09/18/2014	10/07/2014
			Field Sample ID	M283B1	D0215112	M283B2X	D0511112	M283B3	D0810113	M283B4X	M283B5X	M283B6X	M283B7X	M283B8X	M283B9X	M283C1X
			SDG	RFS70	RFS87	RFS87	RFT20	RFT20	RFT55	RFT55	RFX26	RFY49	CP258	CP478	CP511	CS166
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	1.27	1.27	2.04	2.04	6.92	6.57	-	1.47	-	0.8
DO	mg/L	N	NS	-	-	-	8.47	8.47	8.52	8.52	9	8.81	-	9.27	-	8.67
ORP	millivolts	N	NS	-	-	-	-105	-105	-108	-108	-87.2	96	-	-100.3	-	22.3
pH	pH Units	N	NS	-	-	-	7.23	7.23	6.94	6.94	6.25	6.99	-	6.89	-	6.75
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	8500	11000	11000	13000	13000	13000	13000	8500	3300	8000	8400J	6900	6700
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283	MW-283
			Sample Date	10/28/2014	01/22/2015	04/14/2015	07/09/2015	10/15/2015	11/01/2017	11/01/2017	11/17/2017	11/17/2017	02/01/2018	02/01/2018	02/01/2018	04/05/2018
			Field Sample ID	M283C2X	M283C3X	M283C4X	M283C5X	M283C6X	D1101177X	M283D1X	D1117178A	M283D2	D0201188	M283D3	M283D3X	M283D4X
			SDG	CP567	CP654	CP683	CP774	CP887	CQ861	CQ861	CQ895	CQ895	CQ960	CQ960	CQ960	CR021
			Sample Type	GW	GW	GW	GW	GW	FD	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	FD	REG	FD	REG	FD	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.41	4.68	-	1.97	43.1	2.01	2.01	1.81	1.81	-	-	-	-
DO	mg/L	N	NS	8.35	8.31	-	8.15	8.06	7.5	7.5	5.82	5.82	-	-	-	-
ORP	millivolts	N	NS	-85	-125	-	-66	-98.7	22.4	22.4	-170.2	-170.2	-	-	-	-
pH	pH Units	N	NS	6.67	6.69	-	6.80	6.99	6.71	6.71	7.40	7.40	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	9.5	9.4	10.2	9.8	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	9.4	9.5	8.8	8.7	-	-
Benzene	ug/L	N	1	6400	4300	5000	4300	3100	4100	4100	-	-	3900	-	3900	4600
Iron	ug/L	N	300	-	-	-	-	-	-	-	6860	7180	5770	5990	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	6810	6830	5340	5670	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	1500U	1500U	-	-	2800J	-	3400J	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284
			Sample Date	04/02/2008	04/21/2008	04/22/2008	09/30/2008	10/01/2008	10/30/2008	05/11/2009	08/27/2009	12/02/2009	07/07/2010	02/14/2011	08/08/2011
			Field Sample ID	M284A1X	M284A2	M284A2X	M284A3	M284A3X	M284A4	M284A5	M284A6	M284A7	M284A8X-100707	M284A9X	M284B1X
			SDG	1084470	1087622	1087622	1112904	1112904	1117660	1144235	1159641	1173449	RFS52	RFS87	RFT51
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	9.29	-	9.5	-	-	-	-	-	9.72	-	10.45
DO	mg/L	N	NS	-	4.6	-	0	-	-	-	-	-	4.12	-	9.38
ORP	millivolts	N	NS	-	-119	-	-97	-	-	-	-	-	97	-	-68
pH	pH Units	N	NS	-	6.21	-	6.45	-	-	-	-	-	4.76	-	6.42
Alkalinity to pH 4.5	ug/L	N	NS	-	-	683000	-	736000	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	460U	-	460U	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	42.0	-	14.9J	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5J	-	0.5U	5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	-	31100	-	76300	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	30200	-	72100	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	400U	-	40U	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	10000U	-	72800	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	530U	-	530U	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-284	MW-285	MW-285	MW-285	MW-285	MW-285
			Sample Date	12/14/2012	12/14/2012	05/29/2013	09/19/2014	11/20/2017	11/20/2017	01/29/2018	01/29/2018	04/02/2008	04/21/2008	04/22/2008	09/30/2008	10/01/2008
			Field Sample ID	D1214127	M284B2X	M284B3X	M284B4	M284B8	M284B8X	M284B9	M284B9X	M285A1X	M285A2	M285A2X	M285A3	M285A3X
			SDG	RFX20	RFX20	RFZ68	CS158	CQ896	CQ896	CQ953	CQ953	1084470	1087622	1087622	1112904	1112904
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.13	0.13	0.13	1.13	-	-	-	-	-	9.55	-	8.93	-
DO	mg/L	N	NS	10.45	10.45	9.07	10.48	-	-	-	-	-	0.46	-	0	-
ORP	millivolts	N	NS	-77.2	-77.2	-177	18	-	-	-	-	-	-91	-	-32	-
pH	pH Units	N	NS	6.17	6.17	6.53	6.10	-	-	-	-	-	7.83	-	7.16	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	385000	-	622000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	17.7	-	10.2	-	-	14.4J	-	10.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	16	-	9	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	-	230	-	0.5U
Iron	ug/L	N	300	-	-	-	-	81000	-	36500	-	-	180J	-	1080	-
Iron	ug/L	Y	300	-	-	-	-	81000	-	36700	-	-	53.7J	-	173J	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	400U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	15100	-	15200	-	-	143000	-	163000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	530U	-	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-285	MW-285	MW-285	MW-285	MW-285	MW-285	MW-285	MW-285	MW-285	MW-285	MW-285	MW-285
			Sample Date	05/12/2009	08/27/2009	12/03/2009	07/07/2010	02/15/2011	08/08/2011	12/14/2012	05/29/2013	09/19/2014	11/20/2017	11/21/2017	01/29/2018
			Field Sample ID	M285A4	M285A5	M285A6	M285A7X-100707	M285A8X	M285A9X	M285B1X	M285B2X	M285B3	M285B6	M285B6X	M285B7
			SDG	1144454	1159641	1173658	RFS52	RFS87	RFT51	RFX20	RFZ68	CS158	CQ896	CQ898	CQ953
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	9.18	-	13.66	2.52	0.99	1.86	-	-	1.9
DO	mg/L	N	NS	-	-	-	3.5	-	10.31	13.46	8.91	11.76	-	-	12.42
ORP	millivolts	N	NS	-	-	-	-49	-	-81	-49.4	-178	6	-	-	70.2
pH	pH Units	N	NS	-	-	-	7.08	-	6.90	6.86	6.97	6.80	-	-	7.00
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	5.5	-	4.7
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	3.4	-	3.4
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	1660	-	660
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	939	-	494
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	151000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-285	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286
			Sample Date	01/29/2018	04/04/2008	04/24/2008	04/24/2008	09/30/2008	10/01/2008	10/30/2008	05/11/2009	08/28/2009	12/07/2009	07/07/2010	02/14/2011
			Field Sample ID	M285B7X	M286A1X	M286A2	M286A2X	M286A3	M286A3X	M286A4	M286A5	M286A6	M286A7	M286A8X-100707	M286A9X
			SDG	CQ953	1084980	1088064	1088064	1112904	1112904	1117660	1144235	1159807	1174313	RFS52	RFS87
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.9	-	8.64	8.64	8.2	-	-	-	-	-	8.85	-
DO	mg/L	N	NS	12.42	-	1.71	1.71	0	-	-	-	-	-	5.2	-
ORP	millivolts	N	NS	70.2	-	-117	-117	-82	-	-	-	-	-	-62	-
pH	pH Units	N	NS	7.00	-	5.96	5.96	6.34	-	-	-	-	-	6.72	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	237000	-	347000	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	460U	-	460U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	19.6J	-	10.2U	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	-	-	61600	-	19300	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	38900	-	18800	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	40U	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	147000	-	-	25000U	-	10000U	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	1100U	-	530U	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-286	MW-287	MW-287	MW-287	MW-287
			Sample Date	08/08/2011	12/13/2012	05/29/2013	05/29/2013	09/19/2014	11/15/2017	11/16/2017	02/02/2018	02/02/2018	04/04/2008	04/24/2008	04/24/2008	09/30/2008
			Field Sample ID	M286B1X	M286B2X	D0529131	M286B3X	M286B4	M286B7	M286B7X	M286B8	M286B8X	M287A1X	M287A2	M287A2X	M287A3
			SDG	RFT51	RFX18	RFZ68	RFZ68	CS158	CQ889	CQ893	CQ962	CQ962	1084980	1088064	1088064	1112904
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	1.62	0.05	0.05	1.15	-	0.57	0.85	0.85	-	8.31	8.31	8.08
DO	mg/L	N	NS	8.57	9.11	8.31	8.31	9.81	-	5.08	8.72	8.72	-	7.32	7.32	0
ORP	millivolts	N	NS	-112	-74.1	-205	-205	10	-	-283.8	-45.7	-45.7	-	18	18	-150
pH	pH Units	N	NS	6.02	6.19	6.45	6.45	6.36	-	6.46	6.62	6.62	-	9.28	9.28	9.37
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	98800	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	27000	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	10.4	-	2.8	-	-	10.0U	-	10.2U
Arsenic	ug/L	Y	3	-	-	-	-	-	8.1	-	2.8	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	28000	-	39700	-	-	52.2U	-	115J
Iron	ug/L	Y	300	-	-	-	-	-	24000	-	38400	-	-	52.2U	-	52.2U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	670	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	2700J	-	1500U	-	-	32400	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-287	MW-287	MW-287	MW-287	MW-287	MW-287	MW-287	MW-287	MW-287	MW-287	MW-287	MW-287
			Sample Date	10/01/2008	05/12/2009	08/28/2009	12/07/2009	07/07/2010	02/16/2011	08/08/2011	12/17/2012	05/29/2013	10/08/2014	11/16/2017	11/17/2017
			Field Sample ID	M287A3X	M287A4	M287A5	M287A6	M287A7X-100707	M287A8X	M287A9X	M287B1	M287B2X	M287B3X	M287B6	M287B6X
			SDG	1112904	1144454	1159807	1174313	RFS52	RFS89	RFT51	RFX22	RFZ68	CS167	CQ893	CQ895
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	8.35	-	4.89	4.61	1.54	0.84	-	1.01
DO	mg/L	N	NS	-	-	-	-	4.86	-	8.18	8.5	7.01	8.3	-	7.35
ORP	millivolts	N	NS	-	-	-	-	-47	-	-32	-31.4	-145	226	-	-127.3
pH	pH Units	N	NS	-	-	-	-	7.33	-	7.06	6.55	6.85	6.62	-	6.54
Alkalinity to pH 4.5	ug/L	N	NS	147000	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	16100	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	0.76J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	0.92J	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	391	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	365	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	53500	-	-	-	-	-	-	-	-	-	-	26700
Sulfide	ug/L	N	NS	530U	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-287	MW-287	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288
			Sample Date	02/02/2018	02/02/2018	08/04/2008	08/05/2008	05/11/2009	05/11/2009	09/02/2009	12/08/2009	07/08/2010	07/13/2010	10/28/2010	02/14/2011
			Field Sample ID	M287B7	M287B7X	M288A1	M288A1X	M288A2	M288A2X	M288A3	M288A4	M288A5	M288A6X-100713	M288A7	M288A8
			SDG	CQ962	CQ962	1103859	1103859	1144240	1144240	1160325	1174313	RFS54	RFS55	RFS76	RFS86
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	8.95	-	9.3	9.3	-	-	9.31	9.4	9.45	-
DO	mg/L	N	NS	-	-	0.34	-	0.54	0.54	-	-	0.95	4.32	0	-
ORP	millivolts	N	NS	-	-	-76	-	-114	-114	-	-	-116	-204	0	-
pH	pH Units	N	NS	-	-	6.50	-	6.42	6.42	-	-	8.72	6.81	0.00	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	0.85J	-	10.8J	-	10.8J	-	-	-	9.8U	-	9.8U	11.4J
Arsenic	ug/L	Y	3	1J	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	44	-	580	140	410	-	450	-	-
Iron	ug/L	N	300	204	-	1070	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	331	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	26500	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288	MW-288
			Sample Date	02/17/2011	08/08/2011	08/09/2011	08/01/2012	12/17/2012	05/29/2013	05/30/2013	10/07/2014	10/08/2014	11/27/2017	11/27/2017	01/31/2018	01/31/2018
			Field Sample ID	M288A8X	M288A9	M288A9X	M288B1	M288B2	M288B3	M288B3X	M288B4	M288B4X	M288B8	M288B8X	M288B9	M288B9X
			SDG	RFS90	RFT53	RFT52	RFV23	RFX22	RFZ71	RFZ71	CS167	CS167	CQ903	CQ903	CQ958	CQ958
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	1.33	-	0.9	4.37	-	-	0.8	0.84	-	-	-	-
DO	mg/L	N	NS	-	9.11	-	9.15	9.7	-	-	8.5	7.78	-	-	-	-
ORP	millivolts	N	NS	-	-94	-	-117	-37	-	-	-75	229	-	-	-	-
pH	pH Units	N	NS	-	7.06	-	6.88	6.62	-	-	6.19	6.55	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	288000	-	135000	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	700U	-	700U	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	288000	-	135000	-	-	-	-
Arsenic	ug/L	N	3	-	5.1U	-	6.8U	-	13.9	-	5.1J	-	3.1	-	1.3UJ	-
Arsenic	ug/L	Y	3	-	-	-	-	-	12.8	-	4.7J	-	1.6J	-	1.4UJ	-
Benzene	ug/L	N	1	87	-	15	-	0.5U	-	1J	-	0.5U	-	18	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	4800	-	102J	-	1540	-	275	-
Iron	ug/L	Y	300	-	-	-	-	-	4570	-	33.4U	-	581	-	198J	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	40U	-	110	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	59200	-	62000	-	46300	-	58400
Sulfide	ug/L	N	NS	-	-	-	-	-	-	600U	-	1200U	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289
			Sample Date	08/04/2008	08/05/2008	10/30/2008	05/11/2009	08/28/2009	12/07/2009	07/08/2010	07/20/2010	10/28/2010	02/15/2011	02/16/2011	08/08/2011
			Field Sample ID	M289A1	M289A1X	M289A2	M289A3X	M289A4	M289A5	M289A6	M289A7X-100720	M289A8	M289A9	M289A9X	M289B1
			SDG	1103859	1103859	1117660	1144240	1159807	1174313	RFS54	RFS55	RFS76	RFS86	RFS89	RFT53
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.98	-	-	7.28	-	-	7.4	6.75	6.98	-	-	0.53
DO	mg/L	N	NS	0	-	-	0	-	-	0.49	2.49	0	-	-	6.63
ORP	millivolts	N	NS	-149	-	-	-168	-	-	-106	-220	0	-	-	-76
pH	pH Units	N	NS	5.76	-	-	6.48	-	-	8.26	6.44	0.00	-	-	6.66
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	94.2	-	-	-	-	-	68.3	-	60.5	34.4	-	50.3
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	21	33	8J	10	3J	-	5	-	-	0.7J	-
Iron	ug/L	N	300	25100	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-289	MW-290	MW-290
			Sample Date	08/09/2011	08/01/2012	12/13/2012	05/29/2013	05/30/2013	10/07/2014	10/08/2014	11/15/2017	11/15/2017	01/25/2018	01/26/2018	05/14/2009	08/27/2009
			Field Sample ID	M289B1X	M289B2	M289B3X	M289B4	M289B4X	M289B5	M289B5X	M289B8	M289B8X	M289B9	M289B9X	M290A1	M290A2
			SDG	RFT52	RFV23	RFX18	RFZ71	RFZ71	CS167	CS167	CQ889	CQ889	CQ951	CQ952	1144894	1159641
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.57	1.57	0.22	-	-	0.93	-0.15	-	-	-	6.65	-	-
DO	mg/L	N	NS	6.35	6.22	8.79	-	-	8.42	7.56	5.85	5.85	-	7.5	-	-
ORP	millivolts	N	NS	-15	-116	-68.6	-	-	-197	212	-122	-122	-	-55.6	-	-
pH	pH Units	N	NS	7.49	12.36	6.10	-	-	6.05	6.49	7.03	7.03	-	6.92	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	205000	-	209000	-	-	-	211000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	700U	-	700U	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	205000	-	209000	-	-	-	211000	-	-
Arsenic	ug/L	N	3	-	11.6J	-	20.2	-	7.7	-	3.3	-	34.8	-	-	-
Arsenic	ug/L	Y	3	-	-	-	19.0	-	5.6J	-	7.7	-	16.3	-	-	-
Benzene	ug/L	N	1	14J	-	1J	-	0.5U	-	1	-	63	-	3	10	8
Iron	ug/L	N	300	-	-	-	1010	-	9710	-	1990	-	13600	-	-	-
Iron	ug/L	Y	300	-	-	-	565	-	8360	-	3870	-	7540	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	40U	-	40U	-	-	-	250UJ	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	4100J	-	2500U	-	2900J	-	26600	-	-
Sulfide	ug/L	N	NS	-	-	-	-	600U	-	600U	-	-	-	2200	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-290	MW-290	MW-290	MW-290	MW-290	MW-290	MW-290	MW-290	MW-290	MW-290	MW-290	MW-290
			Sample Date	12/04/2009	07/07/2010	02/14/2011	08/11/2011	12/13/2012	03/29/2013	01/14/2014	08/20/2014	09/17/2014	10/21/2014	01/22/2015	04/15/2015
			Field Sample ID	M290A3	M290A4X-100707	M290A5X	M290A6X	M290A7X	M290A8X	M290A9X	M290B1X	M290B2X	M290B4X	M290B5X	M290B6X
			SDG	1173883	RFS52	RFS87	RFT57	RFX18	RFY43	CP259	CP475	CP508	CP552	CP654	CP684
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	8.7	-	3.88	17.5	-	1.1	5.65	-	11.78	10.17	-
DO	mg/L	N	NS	-	0.39	-	9.17	14.45	-	15.1	10.44	-	14.04	14.2	-
ORP	millivolts	N	NS	-	-16	-	-48	25.1	-	154.2	249.7	-	158	105.2	-
pH	pH Units	N	NS	-	7.08	-	6.80	7.07	-	7.31	7.06	-	7.19	7.16	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-290	MW-290	MW-290	MW-290	MW-290	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291
			Sample Date	07/09/2015	10/27/2017	01/24/2018	01/25/2018	04/04/2018	08/05/2008	08/06/2008	05/12/2009	08/27/2009	11/30/2009	07/06/2010	02/14/2011
			Field Sample ID	M290B7X	M290C7X	M290C8	M290C8X	M290C9X	M291A1	M291A1X	M291A2	M291A3	M291A4	M291A5X-100706	M291A6X
			SDG	CP774	CQ848	CQ950	CQ951	CR020	1104159	1104159	1144454	1159641	1173202	RFS52	RFS87
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.48	2.76	-	1.46	-	9.35	-	-	-	-	9.15	-
DO	mg/L	N	NS	13.25	8.51	-	8.84	-	0.69	-	-	-	-	5.02	-
ORP	millivolts	N	NS	194	75.5	-	80.1	-	21	-	-	-	-	-49	-
pH	pH Units	N	NS	7.23	6.95	-	7.61	-	7.56	-	-	-	-	7.26	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	204000	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	204000	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	1.3J	-	-	10.2U	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	0.94J	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	-	0.5U	-	4J	0.5U	0.5U	0.5J	0.5U	0.5U
Iron	ug/L	N	300	-	-	133UJ	-	-	2760	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	1600	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	194000	-	206000	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	700U	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291	MW-291
			Sample Date	08/11/2011	12/14/2012	03/29/2013	01/14/2014	08/20/2014	09/17/2014	10/21/2014	01/22/2015	04/15/2015	07/09/2015	10/19/2015	10/27/2017	04/04/2018
			Field Sample ID	M291A7X	M291A8X	M291C9X	M291D1X	M291D2X	M291D3X	M291D5X	M291D6X	M291D7X	M291D8X	M291D9X	M291E5X	M291E6X
			SDG	RFT57	RFX20	RFY43	CP259	CP475	CP508	CP552	CP654	CP684	CP774	CP892	CQ848	CR020
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.16	10.4	-	-0.8	0.43	-	2.84	2	-	0	-	0.31	-
DO	mg/L	N	NS	9.12	10.29	-	9.12	8.95	-	10.11	9.45	-	9.41	-	6.6	-
ORP	millivolts	N	NS	-73	-63.1	-	-42.3	-15.3	-	-16	-99.4	-	-3	-	-2	-
pH	pH Units	N	NS	7.02	7.03	-	7.06	6.87	-	7.07	7.17	-	6.98	-	7.07	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5UJ	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	99900	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-292	MW-292	MW-292	MW-292	MW-292R	MW-292R	MW-292R	MW-292R	MW-292R	MW-292R	MW-292R	MW-292R	MW-292R
			Sample Date	08/05/2008	08/06/2008	05/13/2009	05/13/2009	01/15/2013	01/15/2013	05/16/2013	05/16/2013	01/15/2014	08/22/2014	09/16/2014	09/29/2014	10/24/2014
			Field Sample ID	M292A1	M292A1X	D0513093	M292A2	M292RA3	M292RA3X	M292RA4	M292RA4X	M292RA5X	M292RA6X	M292RA7X	M292RA8X	M292RA9
			SDG	1104159	1104159	1144693	1144693	RFX31	RFX31	RFZ51	RFZ51	CP260	CP481	CP507	CP520	CP559
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	10.3	-	-	-	1.46	1.46	0.83	0.83	4.34	205.3	2.02	2.5	2.11
DO	mg/L	N	NS	0.08	-	-	-	8.46	8.46	7.7	7.7	6.82	NM	NM	NM	NM
ORP	millivolts	N	NS	-145	-	-	-	-59.9	-59.9	-68.8	-68.8	-119.5	18.5	21	19.6	-36
pH	pH Units	N	NS	6.54	-	-	-	6.43	6.43	6.51	6.51	6.79	6.60	6.85	6.44	6.11
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	16.6J	-	-	-	5.7	-	12.1	-	-	-	-	-	187J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	193J
Benzene	ug/L	N	1	-	19000	18000	17000	-	9800	-	11000	15000	230	170	160	-
Iron	ug/L	N	300	12400	-	-	-	7290	-	43100	-	-	-	-	-	454J
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	256J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-292R	MW-292R	MW-292R	MW-292R	MW-292R	MW-292R	MW-292R	MW-292R	MW-292R	MW-293	MW-293	MW-293	MW-293
			Sample Date	10/24/2014	01/21/2015	04/13/2015	07/08/2015	10/16/2015	10/20/2017	01/23/2018	01/23/2018	04/03/2018	08/04/2008	08/05/2008	05/13/2009	09/02/2009
			Field Sample ID	M292RA9X	M292RB1X	M292RB2X	M292RB3X	M292RB4X	M292RC1X	M292RC2	M292RC2X	M292RC3X	M293A1	M293A1X	M293A2	M293A3
			SDG	CP559	CP651	CP682	CP773	CP889	CQ831	CQ949	CQ949	CR018	1103859	1103859	1144693	1160325
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.11	3.05	1.05	0	0.38	8.68	0.29	0.29	-	9.67	-	-	-
DO	mg/L	N	NS	NM	NM	6.75	6.41	6.4	6.5	7.16	7.16	-	0.46	-	-	-
ORP	millivolts	N	NS	-36	-206.6	-98	-105	-156.6	-68.7	-76.7	-76.7	-	-109	-	-	-
pH	pH Units	N	NS	6.11	6.90	6.92	6.61	7.10	6.70	7.00	7.00	-	6.95	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	137000	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	137000	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	1.2J	-	-	10.2U	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	0.99J	-	-	-	-	-	-
Benzene	ug/L	N	1	88J	87	41	25J-	24	3	-	-	5	-	8	44	69
Iron	ug/L	N	300	-	-	-	-	-	-	3700	-	-	3290	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	250U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	1500J	-	2600J	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	700U	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-293	MW-293	MW-293	MW-293	MW-293	MW-293R	MW-293R	MW-293R	MW-293R	MW-293R	MW-293R	MW-293R
			Sample Date	11/30/2009	07/09/2010	02/17/2011	08/11/2011	05/03/2012	01/21/2013	04/30/2013	05/14/2013	01/15/2014	08/22/2014	09/16/2014	10/24/2014
			Field Sample ID	M293A4	M293A5X-100709	M293A6X	M293A7X	M293A8	M293RA9X	M293RB1X	M293RB2X	M293RB3X	M293B4X	M293RB5X	M293RB7X
			SDG	1173202	RFS52	RFS90	RFT57	RFU53	RFX38	RFZ22	RFZ43	CP260	CP481	CP507	CP559
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	9.9	-	1.69	0.81	21.86	1.16	4.17	0	9.11	3.14	7.86
DO	mg/L	N	NS	-	4.16	-	9.75	10.51	7.26	6.55	6.25	7.67	NM	NM	NM
ORP	millivolts	N	NS	-	-116	-	-150	0.8	143	-218	46.2	52.7	46.3	96.1	37
pH	pH Units	N	NS	-	7.06	-	7.37	0.38	6.67	7.29	6.98	7.01	7.26	7.02	6.89
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	18	57	100	540	140	6	9	7J	6	2	10	1J
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-293R	MW-293R	MW-293R	MW-293R	MW-293R	MW-293R	MW-293R	MW-294	MW-294	MW-294	MW-294	MW-294	MW-294
			Sample Date	01/21/2015	04/13/2015	05/07/2015	07/08/2015	10/21/2015	10/20/2017	04/03/2018	03/30/2009	03/31/2009	10/05/2009	10/06/2009	03/23/2010	03/23/2010
			Field Sample ID	M293RB8X	M293RB9X	M293RC1X	M293RC2X	M293RC3X	M293RC7X	M293RC8X	M294A1	M294A1X	M294A2	M294A2X	M294A3	M294A3X
			SDG	CP651	CP682	CP706	CP773	CP897	CQ831	CR018	1138503	1138503	1165120	1165120	RFS35	RFS35
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.96	-	-	0	-	5.85	-	4.49	-	4.79	-	4.1	4.1
DO	mg/L	N	NS	NM	-	-	6	-	8.25	-	2.97	-	0.22	-	4.22	4.22
ORP	millivolts	N	NS	27.1	-	-	-32	-	-131.6	-	-114	-	-87	-	-101	-101
pH	pH Units	N	NS	6.60	-	-	6.34	-	6.78	-	5.91	-	6.03	-	6.67	6.67
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	36.1	-	55.1	-	42.6	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1	100	100	46J-	32	6	45	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	103000	-	91800	-	99100	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	3700J	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-294	MW-294	MW-294	MW-294	MW-294	MW-294	MW-294	MW-294	MW-294	MW-294	MW-294	MW-294	MW-294
			Sample Date	08/26/2010	08/27/2010	03/24/2011	03/25/2011	09/19/2011	09/20/2011	04/30/2012	05/01/2012	08/27/2012	08/28/2012	05/22/2013	05/23/2013	09/25/2013
			Field Sample ID	M294A4	M294A4X	M294A5	M294A5X	M294A6	M294A6X	M294A7	M294A7X	M294A8	M294A8X	M294A9	M294A9X	M294B1
			SDG	RFS65	RFS65	RFT02	RFT02	RFT70	RFT70	RFU50	RFU50	RFV32	RFV32	RFZ65	RFZ65	CP117
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.12	5.22	0.87	0	3.78	0.72	2.93	1.43	0.54	1.09	-	-	-
DO	mg/L	N	NS	1.58	0	4.61	4.78	5.04	5.05	5.82	5.77	5.8	5.71	-	-	-
ORP	millivolts	N	NS	-86	-94	-52	-94	-43	-60	-89	-107	-40	-68	-	-	-
pH	pH Units	N	NS	6.51	6.18	6.95	6.30	6.81	6.29	7.25	6.43	7.09	6.65	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	700U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	314000	-	332000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	314000	-	332000	-
Arsenic	ug/L	N	3	48.0	-	27.4	-	98.8	-	46.1	-	39.8	-	33.4	-	14.5
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	32.1	-	29.6	-	8.5
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	53700	-	85600	-	100000	-	67700	-	38000	-	39800	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	33900	-	38700	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	10000U	-	12500U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	600U	-	600U	210
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-294	MW-294	MW-295	MW-295	MW-295	MW-295	MW-295	MW-295	MW-295	MW-295	MW-295	MW-295	MW-295
			Sample Date	06/16/2014	06/17/2014	03/30/2009	03/31/2009	10/05/2009	10/06/2009	03/23/2010	03/23/2010	08/26/2010	08/27/2010	03/25/2011	03/25/2011	09/19/2011
			Field Sample ID	M294B2	M294B2X	M295A1	M295A1X	M295A2	M295A2X	M295A3	M295A3X	M295A4	M295A4X	M295A5	M295A5X	M295A6
			SDG	CS113	CS113	1138503	1138503	1165120	1165120	RFS35	RFS35	RFS65	RFS65	RFT02	RFT02	RFT70
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.46	0.23	6.2	-	6.1	-	6.2	6.2	6.23	6.57	0.87	0.87	3.41
DO	mg/L	N	NS	5.2	5.19	2.81	-	0.16	-	3.64	3.64	1.54	0	6.99	6.99	9.7
ORP	millivolts	N	NS	-171	-136	11	-	4	-	-23	-23	-16	13	-3	-3	12
pH	pH Units	N	NS	6.93	6.49	5.58	-	5.73	-	5.86	5.86	6.00	5.71	6.00	6.00	5.95
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	252000	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	252000	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	50.0	-	10.0U	-	7.2U	-	7.2U	-	9.8U	-	9.8U	-	5.1U
Arsenic	ug/L	Y	3	42.5	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	1J	-	0.5U	-	0.7J	-	0.5U	-	1J	-
Iron	ug/L	N	300	54100	-	42100	-	35400	-	34300	-	27500	-	32100	-	25500
Iron	ug/L	Y	300	49000	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	10000U	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	600U	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-295	MW-295	MW-295	MW-295	MW-295	MW-295	MW-295	MW-295	MW-295	MW-296	MW-296	MW-296	MW-296
			Sample Date	09/20/2011	04/30/2012	05/01/2012	08/27/2012	08/28/2012	05/22/2013	05/23/2013	06/16/2014	06/17/2014	03/30/2009	03/31/2009	10/05/2009	10/06/2009
			Field Sample ID	M295A6X	M295A7	M295A7X	M295A8	M295A8X	M295A9	M295A9X	M295B1	M295B1X	M296A1	M296A1X	M296A2	M296A2X
			SDG	RFT70	RFU50	RFU50	RFV32	RFV32	RFZ65	RFZ65	CS113	CS113	1138503	1138503	1165120	1165120
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.63	2.46	1.52	1.07	1.78	-	-	0.3	0.23	11.44	-	11.26	-
DO	mg/L	N	NS	6.89	9.73	6.62	9.96	7.05	-	-	8.9	6.56	2.77	-	0	-
ORP	millivolts	N	NS	71	0	10	-1	41	-	-	-110	-19	-67	-	-83	-
pH	pH Units	N	NS	5.68	5.92	5.54	6.33	6.04	-	-	6.84	5.88	6.06	-	6.21	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	700U	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	49200	-	63600	-	56600	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	700U	-	700U	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	49200	-	63600	-	56600	-	-	-	-
Arsenic	ug/L	N	3	-	8.8J	-	1.4J	-	2.0	-	2.2	-	27.2	-	293	-
Arsenic	ug/L	Y	3	-	-	-	1.4J	-	1.6J	-	1.9J	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	4J	-	2J	-	0.5U	-	0.5U	-	1000	-	330
Iron	ug/L	N	300	-	62900	-	25100	-	30300	-	32600	-	43100	-	69100	-
Iron	ug/L	Y	300	-	-	-	24900	-	28200	-	30900	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	40U	-	40U	-	40U	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	122000	-	110000	-	101000	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	600U	-	600U	-	600U	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296
			Sample Date	03/23/2010	03/23/2010	08/26/2010	08/27/2010	03/25/2011	03/25/2011	09/19/2011	09/20/2011	04/30/2012	05/01/2012	08/27/2012	08/28/2012	04/29/2013
			Field Sample ID	M296A3	M296A3X	M296A4	M296A4X	M296A5	M296A5X	M296A6	M296A6X	M296A7	M296A7X	M296A8	M296A8X	M296A9
			SDG	RFS35	RFS35	RFS65	RFS65	RFT02	RFT02	RFT70	RFT70	RFU50	RFU50	RFV32	RFV32	RFZ22
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.84	9.84	11.35	11.36	0.74	0.74	2.82	1.71	2.26	-	1.12	-	-
DO	mg/L	N	NS	3.89	3.89	2.07	0	10.96	10.96	10.58	10.6	11.49	11.48	11.41	11.41	-
ORP	millivolts	N	NS	-117	-117	-81	-87	-102	-102	-25	-73	-37	-	-52	-	-
pH	pH Units	N	NS	6.34	6.34	6.50	6.26	6.45	6.45	6.48	6.47	6.63	-	6.80	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	700U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	286000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	286000	-
Arsenic	ug/L	N	3	258	-	142	-	230	-	87.9	-	33.3	-	58.4	-	32.6
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	57.6	-	29.6
Benzene	ug/L	N	1	-	1400	-	530	-	280	-	250	-	190	-	120	-
Iron	ug/L	N	300	96600	-	57000	-	129000	-	85600	-	56100	-	56700	-	77500
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	53800	-	72400
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	10000U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	2400	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-296	MW-297	MW-297	MW-297
			Sample Date	04/30/2013	09/25/2013	06/16/2014	06/16/2014	06/17/2014	08/05/2015	08/06/2015	08/07/2015	08/30/2017	08/31/2017	03/30/2009	03/31/2009	09/30/2009
			Field Sample ID	M296A9X	M296B1	M296B2X	M296B3	M296B3X	M296HS	M296B4	M296B4X	M296B9	M296B9X	M297A1	M297A1X	M297A2
			SDG	RFZ22	CP117	CP365	CS113	CS113	CS269	CS270	CS270	CS597	CS597	1138503	1138503	1164446
			Sample Type	GW	GW	GW	GW	GW	PILOT	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	SP	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	0.26	0.26	0.11	-	-	1.82	-	-1.13	5.81	-	5.28
DO	mg/L	N	NS	-	-	10.9	10.9	10.91	-	-	11.3	-	10.92	3.49	-	3.56
ORP	millivolts	N	NS	-	-	-167	-167	-120	-	-	-76	-	-81	33	-	-43
pH	pH Units	N	NS	-	-	6.92	6.92	6.47	-	-	7.35	-	6.64	5.69	-	5.93
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	318000	-	-	-	314000	-	-	295000	-	221000	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	-	-	700U	-	-	700U	-	1700U	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	318000	-	-	-	314000	-	-	295000	-	221000	-	-	-
Arsenic	ug/L	N	3	-	35.6	-	40.8	-	-	42.7	-	22.7	-	10.0U	-	7.2U
Arsenic	ug/L	Y	3	-	34.7	-	37.5	-	-	42.6	-	21.4	-	-	-	-
Benzene	ug/L	N	1	110	-	130J	-	180	70	-	150	-	170	-	0.5U	-
Iron	ug/L	N	300	-	-	-	67600	-	-	61900	-	32300	-	15800	-	7530
Iron	ug/L	Y	300	-	-	-	66000	-	-	57400	-	30400	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	40U	-	-	40U	-	40U	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	12500U	-	-	-	12500U	-	-	10000U	-	10000U	-	-	-
Sulfide	ug/L	N	NS	2400	190	-	-	900J	-	-	680U	-	700U	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-297	MW-297	MW-297	MW-297	MW-297	MW-297	MW-297	MW-297	MW-297	MW-297	MW-297	MW-297	MW-297
			Sample Date	10/01/2009	03/16/2010	03/17/2010	08/18/2010	08/19/2010	03/28/2011	03/29/2011	09/21/2011	09/22/2011	05/02/2012	05/03/2012	08/30/2012	08/31/2012
			Field Sample ID	M297A2X	M297A3	M297A3X	M297A4	M297A4X	M297A5	M297A5X	M297A6	M297A6X	M297A7	M297A7X	M297A8	M297A8X
			SDG	1164446	RFS33	RFS33	RFS64	RFS64	RFT03	RFT03	RFT71	RFT71	RFU52	RFU52	RFV33	RFV33
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	5.58	-	6.18	9.07	6.59	3.42	2.84	1.43	2.84	5.27	2.08	1.61
DO	mg/L	N	NS	-	2.89	-	1.9	0.18	9.58	5.81	10.29	6.12	11.23	5.62	10.4	9.86
ORP	millivolts	N	NS	-	140	-	-85	6	121	42	-31	61	36	43	-52	-26
pH	pH Units	N	NS	-	5.64	-	6.50	5.98	6.69	6.16	6.64	6.24	6.86	6.69	6.65	6.01
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	700U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	138000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	138000
Arsenic	ug/L	N	3	-	7.2U	-	9.8U	-	9.8U	-	5.1U	-	5.1U	-	1.3J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	0.93J	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	2080	-	29000	-	1670	-	345	-	2650	-	8350	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	5530	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	5000U
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	600U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-297	MW-297	MW-297	MW-297	MW-297	MW-297	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R
			Sample Date	05/22/2013	05/23/2013	09/22/2014	09/23/2014	02/23/2015	02/24/2015	01/21/2013	01/21/2013	05/16/2013	05/16/2013	05/16/2013	01/15/2014	08/22/2014
			Field Sample ID	M297A9	M297A9X	M297B1	M297B1X	M297B2	M297B2X	M305RA1	M305RA1X	D0516137	M305RA3	M305RA3X	M305RA4X	M305RA5X
			SDG	RFZ65	RFZ65	CS159	CS159	CS203	CS203	RFX38	RFX38	RFZ51	RFZ51	RFZ51	CP260	CP481
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	0.3	0.22	4.54	-	5.64	5.64	12.65	12.65	12.65	0.23	5.75
DO	mg/L	N	NS	-	-	11.52	9.26	10.92	-	10.2	10.2	9.9	9.9	9.9	10.75	NM
ORP	millivolts	N	NS	-	-	142	108	1115	-	-1.6	-1.6	-41.9	-41.9	-41.9	-55	183.3
pH	pH Units	N	NS	-	-	6.92	6.64	7.33	-	6.86	6.86	6.36	6.36	6.36	6.84	5.93
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	99100	-	106000	-	110000	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	99100	-	106000	-	110000	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	0.40U	-	5.5	-	0.82U	-	1.1J	-	9.3	9.0	-	-	-
Arsenic	ug/L	Y	3	0.40U	-	5.7	-	0.82U	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	940	6000	-	6200	8400	1800
Iron	ug/L	N	300	836	-	28900	-	1050	-	364	-	14100	13600	-	-	-
Iron	ug/L	Y	300	394	-	28400	-	205	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	260	-	84J	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	7500J	-	10000U	-	25000U	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	600U	-	600U	-	680U	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R	MW-305R
			Sample Date	09/16/2014	09/29/2014	10/27/2014	10/27/2014	10/27/2014	01/29/2015	04/15/2015	07/08/2015	07/08/2015	10/16/2015	10/16/2015	10/23/2017	01/11/2018
			Field Sample ID	M305RA6X	M305RA7X	M305RA8	M305RA8	M305RA8X	M305RA9X	M305RB1X	D0708157	M305RB2X	D1016157	M305RB3X	M305RB9X	M305RC1
			SDG	CP507	CP520	CP564	CP583	CP583	CP658	CP684	CP773	CP773	CP889	CP889	CQ834	CQ938
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	FD	REG	FD	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.43	1.68	-	-	-	7.64	-	0	0	-	-	2.17	-
DO	mg/L	N	NS	NM	NM	-	-	-	NM	-	8.81	8.81	-	-	9.5	-
ORP	millivolts	N	NS	225.4	110.4	-	-	-	-23	-	-109	-109	-	-	51.6	-
pH	pH Units	N	NS	4.74	6.37	-	-	-	6.74	-	6.89	6.89	-	-	7.34	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	11.0J	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	10.9	-	-	-	-	-	-	-	-	-	1.3UJ
Benzene	ug/L	N	1	11000	2000	-	-	740J	710	300	96J-	96J-	19	16	0.5U	-
Iron	ug/L	N	300	-	-	-	144J	-	-	-	-	-	-	-	-	131J
Iron	ug/L	Y	300	-	-	180J	-	-	-	-	-	-	-	-	-	80.5U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	24100	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-305R	MW-305R	MW-306	MW-306	MW-306	MW-306	MW-306	MW-316	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R
			Sample Date	01/15/2018	04/02/2018	12/13/2011	09/04/2012	07/22/2013	06/20/2014	12/19/2014	07/08/2015	01/15/2013	01/15/2013	05/14/2013	05/14/2013	01/15/2014
			Field Sample ID	M305RC1X	M305RC2X	M306A1	M306A2	M306A3X	M306A4X	M306A5X	M316RB2X	M316RA2	M316RA2X	M316RA3	M316RA3X	M316RA4X
			SDG	CQ941	CR015	RFT95	RFV34	RFB46	CS115	CS193	CP773	RFX31	RFX31	RFZ43	RFZ43	CP260
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.6	-	4.09	1.66	-	-	-	-	1.67	1.67	2.58	2.58	2.88
DO	mg/L	N	NS	6.7	-	7.97	7.98	8.8	8.75	-	-	7.81	7.81	6.9	6.9	6.77
ORP	millivolts	N	NS	48	-	-100	-130	-	-	-	-	-49.9	-49.9	-101.8	-101.8	-59.1
pH	pH Units	N	NS	7.75	-	6.75	6.70	-	-	-	-	6.40	6.40	6.45	6.45	6.66
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	69200	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	69200	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	12.6	-	14.5	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	6	6	5J	4	3	46J-	-	5500	-	8300	8000
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	61100	-	26200	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	2400J+	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	33900J+	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	700U	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R	MW-316R
			Sample Date	08/22/2014	08/22/2014	09/16/2014	09/16/2014	09/29/2014	10/23/2014	10/23/2014	01/21/2015	04/13/2015	10/23/2017	01/23/2018	01/23/2018	04/03/2018
			Field Sample ID	D08221472	M316RA5X	D0916147	M316RA6X	M316RA7X	M316RA8	M316RA8X	M316RA9X	M316RB1X	M316RB9X	M316RC1	M316RC1X	M316RC2X
			SDG	CP481	CP481	CP507	CP507	CP520	CP557	CP557	CP651	CP682	CQ834	CQ949	CQ949	CR018
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	9.19	9.19	3.93	3.47	3.47	-	1.04	3.71	0.9	0.9	-
DO	mg/L	N	NS	-	-	NM	NM	NM	NM	NM	-	6.63	6.8	6.98	6.98	-
ORP	millivolts	N	NS	-	-	68.2	68.2	42	-21	-21	-	-170	-60.2	-22.5	-22.5	-
pH	pH Units	N	NS	-	-	5.63	5.63	5.52	5.74	5.74	-	6.70	6.10	6.41	6.41	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	89700	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	89700	-
Arsenic	ug/L	N	3	-	-	-	-	-	332	-	-	-	-	6.1	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	327	-	-	-	-	2.4	-	-
Benzene	ug/L	N	1	610	630	89	110	79	-	8	65	100	12	-	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	6880	-	-	-	-	11200	-	-
Iron	ug/L	Y	300	-	-	-	-	-	6670	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	420J	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	3800J	-	12800	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	1400U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-317	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R
			Sample Date	10/24/2017	01/22/2013	01/22/2013	03/28/2013	03/28/2013	03/28/2013	01/16/2014	08/22/2014	09/16/2014	09/29/2014	09/29/2014	10/27/2014	10/27/2014
			Field Sample ID	D1024177	M317RA2	M317RA2X	D03281310	M317RA3	M317RA3X	M317RA4X	M317RA5X	M317RA6X	D0929147	M317RA7X	D1027147	D1027147
			SDG	CQ837	RFX39	RFX39	RFY42	RFY42	RFY42	CP261	CP481	CP507	CP520	CP520	CP564	CP583
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	FD	REG	REG	REG	REG	REG	FD	REG	FD	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	0.4	0.4	8.38	8.38	8.38	0	1.92	0.09	1.17	1.17	7.57	7.57
DO	mg/L	N	NS	-	7.05	7.05	6.71	6.71	6.71	6.94	NM	NM	NM	NM	NM	NM
ORP	millivolts	N	NS	-	-71	-71	-60.9	-60.9	-60.9	-74.6	-67.3	163.4	-78.1	-78.1	-29	-29
pH	pH Units	N	NS	-	6.54	6.54	6.45	6.45	6.45	6.36	6.33	5.89	6.54	6.54	5.76	5.76
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	15.6	-	14.8	14.6	-	-	-	-	-	-	-	119J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	120	-
Benzene	ug/L	N	1	220	-	11000	12000	-	12000	11000	6900	2800	3300	3300	-	4800J
Iron	ug/L	N	300	-	38400	-	65200	62100	-	-	-	-	-	-	-	1200J
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	1110	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	2100J	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-317R	MW-318R
			Sample Date	10/27/2014	10/27/2014	10/27/2014	01/29/2015	01/29/2015	04/15/2015	07/08/2015	10/22/2015	10/24/2017	01/11/2018	01/16/2018	04/02/2018	01/07/2013
			Field Sample ID	M317RA8	M317RA8	M317RA8X	D0129157	M317RA9X	M317RB1X	M317RB2X	M317RB3X	M317RB9X	M317RC1	M317RC1X	M317RC2X	M318RA1
			SDG	CP564	CP583	CP583	CP658	CP658	CP684	CP773	CP898	CQ837	CQ938	CQ942	CR015	RFX28
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.57	7.57	7.57	2.82	2.82	-	0	-	0.75	-	4.76	-	3.09
DO	mg/L	N	NS	NM	NM	NM	NM	NM	-	5.36	-	8.2	-	6.46	-	8.34
ORP	millivolts	N	NS	-29	-29	-29	-63.7	-63.7	-	-165	-	-86.1	-	87.9	-	-26
pH	pH Units	N	NS	5.76	5.76	5.76	6.61	6.61	-	6.79	-	6.60	-	7.77	-	6.69
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	62100	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	62100	-	-
Arsenic	ug/L	N	3	-	120J	-	-	-	-	-	-	-	-	-	-	8.6
Arsenic	ug/L	Y	3	117	-	-	-	-	-	-	-	-	6.6	-	-	-
Benzene	ug/L	N	1	-	-	4300J	440	440	330	180J-	140	220	-	3	8	-
Iron	ug/L	N	300	-	1180J	-	-	-	-	-	-	-	7590	-	-	24700
Iron	ug/L	Y	300	1120	-	-	-	-	-	-	-	-	5540	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	450J	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	2300J	-	79500	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	700U	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-318R	MW-318R	MW-318R	MW-318R	MW-318R	MW-318RR	MW-318RR	MW-318RR	MW-318RR	MW-319	MW-319R	MW-319R	MW-319R
			Sample Date	01/07/2013	05/16/2013	05/16/2013	04/15/2015	07/08/2015	10/24/2017	01/18/2018	01/18/2018	04/02/2018	01/15/2014	01/17/2013	01/17/2013	05/14/2013
			Field Sample ID	M318RA1X	M318RA2	M318RA2X	M318RA5X	M318RA6X	M318RRB4X	M318RRB5	M318RRB5X	M318RRB6X	M319A3X	M319RA1	M319RA1X	M319RA2
			SDG	RFX28	RFZ51	RFZ51	CP684	CP773	CQ837	CQ944	CQ944	CR015	CP260	RFX35	RFX35	RFZ43
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.09	4.47	4.47	-	8.18	0.65	6.62	6.62	-	-	23.35	23.35	2.36
DO	mg/L	N	NS	8.34	9.78	9.78	-	NM	7.5	6.99	6.99	-	-	7.49	7.49	7.38
ORP	millivolts	N	NS	-26	-83.5	-83.5	-	-114	-49.2	50.3	50.3	-	-	17.2	17.2	-12.5
pH	pH Units	N	NS	6.69	6.50	6.50	-	12.48	6.54	6.62	6.62	-	-	7.07	7.07	6.78
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	157000	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	157000	-	-	-	-	-
Arsenic	ug/L	N	3	-	20.6	-	-	-	-	9.1	-	-	-	6.2	-	5.5
Arsenic	ug/L	Y	3	-	-	-	-	-	-	7.7	-	-	-	-	-	-
Benzene	ug/L	N	1	1800	-	5000	27	53J-	220	-	93	160	800	-	1100	-
Iron	ug/L	N	300	-	58600	-	-	-	-	3100	-	-	-	4750	-	6190
Iron	ug/L	Y	300	-	-	-	-	-	-	1840	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	250U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	4700J	-	45100	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	2800U	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-319R	MW-319R	MW-319R	MW-319R	MW-319R	MW-319R	MW-319R	MW-319R	MW-319R	MW-319R	MW-319R	MW-321	MW-321
			Sample Date	05/14/2013	08/22/2014	09/16/2014	09/29/2014	10/23/2014	10/23/2014	01/21/2015	05/07/2015	07/08/2015	10/23/2017	04/04/2018	01/07/2013	05/14/2013
			Field Sample ID	M319RA2X	M319RA3X	M319RA4X	M319RA5X	M319RA6	M319RA6X	M319RA7X	M319RA8X	M319RA9X	M319RB7X	M319RB8X	M321A1X	M321A2X
			SDG	RFZ43	CP481	CP507	CP520	CP557	CP557	CP651	CP706	CP773	CQ834	CR020	RFX28	RFZ43
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.36	3.81	3.46	4.11	-	-	11.11	0.55	0	1.7	-	3.25	4.14
DO	mg/L	N	NS	7.38	NM	NM	NM	-	-	NM	8.53	8.05	8	-	11.31	11.92
ORP	millivolts	N	NS	-12.5	49.1	54.6	24.4	-	-	100.5	-25	141	111.8	-	11.4	-1.3
pH	pH Units	N	NS	6.78	6.60	7.58	6.85	-	-	6.68	6.89	6.77	8.26	-	7.14	6.72
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	11.5	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	11.0	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1700	5	0.5U	10	-	14	5	48	3J-	0.5U	0.5U	0.6J	0.5U
Iron	ug/L	N	300	-	-	-	-	52.5J	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	33.4U	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	9500	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-321	MW-321	MW-321	MW-321	MW-321	MW-321	MW-321	MW-321	MW-321	MW-321	MW-321	MW-329	MW-329
			Sample Date	01/14/2014	08/21/2014	09/18/2014	10/21/2014	01/20/2015	04/16/2015	07/08/2015	10/21/2015	10/25/2017	01/16/2018	01/16/2018	04/23/2012	04/23/2012
			Field Sample ID	M321A3X	M321A4X	M321A5X	M321A7X	M321A8X	M321A9X	M321B1X	M321B2X	M321B9X	M321C1	M321C1X	M329A1	M329A1X
			SDG	CP259	CP478	CP511	CP552	CP649	CP685	CP773	CP897	CQ841	CQ942	CQ942	RFU48	RFU48
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.88	-	-	5.67	10.69	-	4.01	-	0.77	4.92	4.92	-	-
DO	mg/L	N	NS	10.7	-	-	8.65	9.09	-	8.75	-	8.6	8.94	8.94	5.08	5.08
ORP	millivolts	N	NS	-27.3	-	-	-79	130.4	-	195	-	-29.3	121.8	121.8	-82.02	-82.02
pH	pH Units	N	NS	7.02	-	-	7.14	7.05	-	6.60	-	7.11	7.15	7.15	6.43	6.43
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	183000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	183000	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	2.1	-	32.4	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	0.72U	-	-	-
Benzene	ug/L	N	1	0.5U	1J	11	21	0.5U	0.5UJ	0.5UJ	0.5U	0.5U	-	0.5U	-	6
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	3450	-	39100	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	80.5U	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	650	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	41000	-	40300	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	700U	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-329	MW-329	MW-329	MW-329	MW-329	MW-329	MW-329	MW-329	MW-329	MW-329	MW-329	MW-329	MW-329
			Sample Date	06/21/2012	06/21/2012	06/21/2012	11/14/2012	11/14/2012	01/28/2013	05/09/2013	07/01/2013	07/02/2013	10/15/2013	12/18/2013	12/18/2013	07/09/2014
			Field Sample ID	D0621123	M329A2	M329A2X	M329A3	M329A3X	M329A4	M329A5X	M329A6	M329A6X	M329A7X	M329A8	M329A8X	M329A9X
			SDG	RFU90	RFU90	RFU90	RFX05	RFX05	RFX41	RFZ32	CP026	CP028	CP143	CP243	CP243	CP406
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.59	1.59	1.59	-	-	0.78	3.85	0.55	0.58	4.31	-0.13	-0.13	0.53
DO	mg/L	N	NS	5.43	5.43	5.43	-	-	4.9	4.05	4.89	4.91	5.75	5.4	5.4	5.13
ORP	millivolts	N	NS	-114	-114	-114	-	-	-186	-90	-61	-80	-148	-114.2	-114.2	-63.9
pH	pH Units	N	NS	6.45	6.45	6.45	-	-	6.28	6.93	6.42	6.00	6.28	6.16	6.16	6.39
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	717000	-	437000	-	-	-	-	468000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	717000	-	437000	-	454000	1040000	-	468000	-
Arsenic	ug/L	N	3	66.0	62.7	-	30.2	-	30.5	-	47.7	-	-	35.0	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	20.5	-	46.8	-	-	31.0	-	-
Benzene	ug/L	N	1	-	-	14	-	6	-	0.5U	-	1J	13J	-	0.6J	9
Iron	ug/L	N	300	41700	41300	-	34300	-	44300	-	38700	-	-	35400	-	-
Iron	ug/L	Y	300	-	-	-	-	-	39000	-	35900	-	-	34700	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	50000	-	15600	-	2400J	3400J	-	9000	4500J
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-329	MW-329	MW-329R	MW-329R	MW-329R	MW-329R	MW-330	MW-330	MW-330	MW-330	MW-330	MW-330	MW-330
			Sample Date	03/10/2015	07/14/2015	10/18/2017	10/18/2017	01/09/2018	01/09/2018	01/17/2013	05/17/2013	01/17/2014	08/21/2014	09/18/2014	10/27/2014	01/20/2015
			Field Sample ID	M329B1X	M329B2X	M329RC2	M329RC2X	M329RC3	M329RC3X	M330A1X	M330A2X	M330A3X	M330A4X	M330A5X	M330A6X	M330A7X
			SDG	CP664	CP779	CQ825	CQ825	CQ935	CQ935	RFX35	RFZ54	CP262	CP478	CP511	CP583	CP649
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0	0	3.7	3.7	1.11	1.11	0.84	3.91	0	-	-	5.98	1.18
DO	mg/L	N	NS	4.98	5.85	3.35	3.35	3.97	3.97	15.51	13.5	11.9	-	-	11.34	12.56
ORP	millivolts	N	NS	-133	-263	36.4	36.4	-94	-94	-81.9	-66.5	130.7	-	-	-266	-316.4
pH	pH Units	N	NS	9.81	6.37	6.88	6.88	7.23	7.23	6.68	6.72	6.47	-	-	6.47	6.58
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	5.5	-	2.7	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	3.3	-	1.6UJ	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	27	-	1UJ	-	0.5U	13000	12000	12000	9200J	5500	7100J	6400
Iron	ug/L	N	300	-	-	2400	-	2380	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	674	-	990	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	16400	3400J	-	268000	-	275000	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-330	MW-330	MW-330	MW-330	MW-330	MW-330	MW-330	MW-330	MW-330	MW-330	MW-331	MW-331	MW-331
			Sample Date	04/14/2015	04/14/2015	07/08/2015	10/22/2015	10/31/2017	01/22/2018	01/22/2018	01/22/2018	04/05/2018	04/05/2018	01/04/2013	05/17/2013	01/16/2014
			Field Sample ID	D0414157	M330A8X	M330A9X	M330B1X	M330B7X	D01221815	M330B8	M330B8X	D0405087	M330B9X	M331A1X	M331A2X	M331A3X
			SDG	CP683	CP683	CP773	CP898	CQ858	CQ947	CQ947	CQ947	CR021	CR021	RFX27	RFZ54	CP261
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	REG	REG	FD	REG	REG	FD	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	0	-	2.81	0.25	0.25	0.25	-	-	1.01	-	-
DO	mg/L	N	NS	-	-	NM	-	11.4	12.36	12.36	12.36	-	-	7.3	-	-
ORP	millivolts	N	NS	-	-	-274	-	17.7	-152.8	-152.8	-152.8	-	-	-52.4	-	-
pH	pH Units	N	NS	-	-	6.78	-	6.32	7.26	7.26	7.26	-	-	6.27	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	237000	-	232000	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	237000	-	232000	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	0.98J	1.3J	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	0.78J	0.72U	-	-	-	-	-	-
Benzene	ug/L	N	1	9900	9000	8000J-	5200	370	-	-	-	170	190	1800	2300	2800
Iron	ug/L	N	300	-	-	-	-	-	5100	5070	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	250U	-	250U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	76300	17500	-	17800J+	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	2800J	-	2400J-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-331	MW-331	MW-331	MW-331	MW-331	MW-331	MW-331	MW-331	MW-331	MW-331	MW-331	MW-332	MW-332
			Sample Date	08/21/2014	09/18/2014	10/27/2014	03/12/2015	04/15/2015	07/08/2015	10/22/2015	10/25/2017	01/11/2018	01/16/2018	04/09/2018	01/07/2013	05/15/2013
			Field Sample ID	M331A4X	M331A5X	M331A6X	M331A7X	M331A8X	M331A9X	M331B1X	M331B7X	M331B8	M331B8X	M331B9X	M332A1X	M332A2X
			SDG	CP478	CP511	CP583	CP667	CP684	CP773	CP898	CQ841	CQ938	CQ942	CR024	RFX28	RFZ45
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	2.04	1.09	-	0	-	0.71	-	-	-	0.85	2.97
DO	mg/L	N	NS	-	-	8.4	7.3	-	5.94	-	7.6	-	-	-	7.1	8.6
ORP	millivolts	N	NS	-	-	-70	26	-	-47	-	-63.5	-	-	-	74.9	-55.3
pH	pH Units	N	NS	-	-	6.27	6.77	-	5.92	-	6.34	-	-	-	7.56	7.29
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	58200	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	58200	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	7.5	-	-	-	-
Benzene	ug/L	N	1	1000J	970	1000J	4	3	23J-	290	1000J	-	9	35	28	32
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	1130	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	103UJ	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	330J	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	4600J	-	11000	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	700U	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-332	MW-332	MW-332	MW-332	MW-332	MW-332	MW-332	MW-332	MW-332	MW-332	MW-341	MW-341	MW-341
			Sample Date	01/15/2014	01/15/2014	08/20/2014	09/17/2014	10/21/2014	01/20/2015	04/13/2015	07/09/2015	10/19/2015	10/25/2017	01/21/2013	01/21/2013	05/16/2013
			Field Sample ID	D0115148	M332A3X	M332A4X	M332A5X	M332A6X	M332A7X	M332A8X	M332A9X	M332B1X	M332B6X	M341A1	M341A1X	M341A2
			SDG	CP260	CP260	CP475	CP508	CP552	CP649	CP682	CP774	CP892	CQ841	RFX38	RFX38	RFZ51
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.6	2.6	-	4.54	11.52	8.65	-	0	-	0.5	35.12	35.12	6.15
DO	mg/L	N	NS	6.51	6.51	-	6.01	6.48	6.51	-	7.62	-	7.4	7.04	7.04	6.58
ORP	millivolts	N	NS	-74.6	-74.6	-	22.6	-49	84.2	-	4	-	11	-48.7	-48.7	-78.8
pH	pH Units	N	NS	7.29	7.29	-	7.35	7.62	7.60	-	7.12	-	7.59	6.50	6.50	6.67
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	9.1	-	9.4
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	790J	40J	30J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	3800	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	12300	-	17500
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	31500	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-341	MW-341	MW-341	MW-341	MW-341	MW-341	MW-341	MW-341	MW-341	MW-341	MW-341	MW-341	MW-341
			Sample Date	05/16/2013	01/15/2014	08/22/2014	09/16/2014	09/29/2014	10/24/2014	10/24/2014	01/21/2015	04/13/2015	07/08/2015	10/20/2017	01/11/2018	01/15/2018
			Field Sample ID	M341A2X	M341A3X	M341A4X	M341A5X	M341A6X	M341A7	M341A7X	M341A8X	M341A9X	M341B1X	M341B8X	M341B9	M341B9X
			SDG	RFZ51	CP260	CP481	CP507	CP520	CP559	CP559	CP651	CP682	CP773	CQ831	CQ938	CQ941
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.15	4.6	5.99	2.54	0.98	2.19	2.19	-	0.53	0	3.49	-	1.31
DO	mg/L	N	NS	6.58	6.44	NM	NM	NM	NM	NM	-	6.29	5.99	6	-	7.3
ORP	millivolts	N	NS	-78.8	-107	40.3	60.3	35.4	-124	-124	-	-93	-78	-61.9	-	-148.9
pH	pH Units	N	NS	6.67	6.23	6.20	6.02	5.84	6.28	6.28	-	6.69	6.32	6.63	-	6.76
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	30500
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	30500
Arsenic	ug/L	N	3	-	-	-	-	-	123J	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	115J	-	-	-	-	-	0.8UJ	-
Benzene	ug/L	N	1	14000	13000	1600	1700	1400	-	92J	11	2	12J-	320	-	470
Iron	ug/L	N	300	-	-	-	-	-	654J	-	-	-	-	-	5620	-
Iron	ug/L	Y	300	-	-	-	-	-	643J	-	-	-	-	-	5270	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	250U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	2000J	-	27200
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	700U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-341	MW-342	MW-342	MW-342	MW-342	MW-342	MW-342	MW-342	MW-342	MW-342	MW-342	MW-342	MW-342
			Sample Date	04/02/2018	01/22/2013	01/22/2013	03/28/2013	03/28/2013	01/16/2014	01/16/2014	08/22/2014	09/16/2014	09/29/2014	10/24/2014	10/24/2014	01/21/2015
			Field Sample ID	M341C1X	M342A1	M342A1X	M342A2	M342A2X	D0116148	M342A3X	M342A4X	M342A5X	M342A6X	M342A7	M342A7X	M342A8X
			SDG	CR015	RFX39	RFX39	RFY42	RFY42	CP261	CP261	CP481	CP507	CP520	CP559	CP559	CP651
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	0.65	0.65	6.21	6.21	0	0	-	0.12	8.08	7.82	7.82	-
DO	mg/L	N	NS	-	10	10	10.02	10.02	9.3	9.3	-	NM	NM	NM	NM	-
ORP	millivolts	N	NS	-	74.2	74.2	-35.6	-35.6	-132.7	-132.7	-	99.7	61.1	-119	-119	-
pH	pH Units	N	NS	-	7.02	7.02	6.75	6.75	6.86	6.86	-	6.10	6.33	6.64	6.64	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	3.2J	-	7.7	10.1	-	-	-	-	-	111J	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	93.6J	-	-
Benzene	ug/L	N	1	740	-	7800	-	13000	17000	16000	1200	580	280	-	950J	280
Iron	ug/L	N	300	-	4600	-	8170	14200	-	-	-	-	-	478J	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	426J	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-342	MW-342	MW-342	MW-342	MW-342	MW-342	MW-342	MW-343	MW-343	MW-343	MW-343	MW-343	MW-343
			Sample Date	05/07/2015	07/08/2015	10/21/2015	10/26/2017	01/18/2018	01/18/2018	04/03/2018	01/16/2013	01/16/2013	01/16/2013	05/15/2013	05/15/2013	01/15/2014
			Field Sample ID	M342A9X	M342B1X	M342B2X	M342B8X	M342B9	M342B9X	M342C1X	D0116137	M343A1	M343A1X	M343A2	M343A2X	M343A3X
			SDG	CP706	CP773	CP897	CQ846	CQ944	CQ944	CR018	RFX34	RFX34	RFX34	RFZ45	RFZ45	CP260
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.53	0	-	0.22	-	-	-	2.39	2.39	2.39	5.45	5.45	0.71
DO	mg/L	N	NS	6.48	5.75	-	8	-	-	-	8.63	8.63	8.63	8.45	8.45	7.37
ORP	millivolts	N	NS	-271	-148	-	-71.3	-	-	-	-46.5	-46.5	-46.5	-102.2	-102.2	-118.2
pH	pH Units	N	NS	6.94	6.54	-	6.78	-	-	-	6.63	6.63	6.63	6.62	6.62	6.59
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	157000	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	157000	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	5.1	-	-	13.3	11.9	-	12.7	-	-
Arsenic	ug/L	Y	3	-	-	-	-	3.9	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	280	140J-	440	710	-	1200	1300	11000	-	12000	-	12000	14000
Iron	ug/L	N	300	-	-	-	-	4320	-	-	62900	60300	-	34700	-	-
Iron	ug/L	Y	300	-	-	-	-	3780	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	250U	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	1500UJ	-	1500U	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	700U	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-343	MW-343	MW-343	MW-343	MW-343	MW-343	MW-343	MW-343	MW-343	MW-343	MW-347	MW-347	MW-347
			Sample Date	08/22/2014	09/16/2014	09/29/2014	10/24/2014	10/24/2014	01/29/2015	04/13/2015	07/08/2015	10/20/2017	04/04/2018	04/23/2013	04/23/2013	04/23/2013
			Field Sample ID	M343RA4X	M343A5X	M343A6X	M343A7	M343A7X	M343A8X	M343A9X	M343B1X	M343B8X	M343B9X	D0423138	D0423138	D0423138
			SDG	CP481	CP507	CP520	CP559	CP559	CP658	CP682	CP773	CQ831	CR020	RFZ03	RFZ05	RFZ06
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	FD	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.95	3.28	0.84	5.91	5.91	1.43	-	0.21	1.68	-	2.55	2.55	2.55
DO	mg/L	N	NS	NM	NM	NM	NM	NM	NM	-	7.95	6.8	-	9.66	9.66	9.66
ORP	millivolts	N	NS	-44.3	54.6	-5.4	-52	-52	-116.2	-	-81	-76.8	-	-70.8	-70.8	-70.8
pH	pH Units	N	NS	6.17	6.21	6.04	6.00	6.00	6.51	-	6.56	6.67	-	6.49	6.49	6.49
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	366000J	-
Arsenic	ug/L	N	3	-	-	-	127J	-	-	-	-	-	-	-	16.2	-
Arsenic	ug/L	Y	3	-	-	-	129J	-	-	-	-	-	-	-	-	15.7
Benzene	ug/L	N	1	300	110	200	-	310J	260	210	33J-	45	44	130	-	-
Iron	ug/L	N	300	-	-	-	2470J	-	-	-	-	-	-	-	26600	-
Iron	ug/L	Y	300	-	-	-	2390J	-	-	-	-	-	-	-	-	22000
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	1500U	-	-	2800J	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-347	MW-347	MW-347	MW-347	MW-347	MW-347	MW-347	MW-347	MW-347	MW-347	MW-347	MW-347	MW-347
			Sample Date	04/23/2013	04/23/2013	04/23/2013	04/23/2013	05/21/2013	10/29/2013	10/29/2013	10/29/2013	07/14/2015	07/15/2015	02/11/2016	09/12/2017	09/13/2017
			Field Sample ID	M347A1	M347A1	M347A1X	M347A1X	M347A2X	D1029138	M347A3	M347A3X	M347A4	M347A4X	D0211168	M347B5	M347B5X
			SDG	RFZ05	RFZ06	RFZ03	RFZ05	RFZ58	CP171	CP171	CP171	CS261	CS261	CQ013	CS602	CS602
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	FD	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.55	2.55	2.55	2.55	2.48	0.83	0.83	0.83	-	1.68	0.18	-	0.24
DO	mg/L	N	NS	9.66	9.66	9.66	9.66	9.37	9.82	9.82	9.82	-	11.64	8.99	-	9.02
ORP	millivolts	N	NS	-70.8	-70.8	-70.8	-70.8	-88.3	-138.1	-138.1	-138.1	-	-79	-39.2	-	3
pH	pH Units	N	NS	6.49	6.49	6.49	6.49	6.48	6.72	6.72	6.72	-	6.91	5.98	-	7.02
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	152000	-	-	181000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	700U	-	-	1700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	462000J	-	-	-	-	-	152000	-	-	181000
Arsenic	ug/L	N	3	15.8	-	-	-	-	4.6	44.4	-	75.9	-	59.4	43.5	-
Arsenic	ug/L	Y	3	-	15.5	-	-	-	1.5J	43.4	-	75.6	-	-	40.0	-
Benzene	ug/L	N	1	-	-	150	-	140	180	-	200	-	-	120	-	35
Iron	ug/L	N	300	24600	-	-	-	-	18000	22500	-	17800	-	235000	5370	-
Iron	ug/L	Y	300	-	21500	-	-	-	15600	22100	-	17400	-	-	5140	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	40U	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	2900J	-	1800J	-	2000J	-	2500U	4660000	-	42800
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	680U	1700J	-	700U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-347	MW-347	MW-348	MW-348	MW-348	MW-348	MW-348	MW-348	MW-348	MW-348	MW-348	MW-381	MW-381
			Sample Date	02/16/2018	02/16/2018	10/29/2013	10/30/2013	01/09/2014	01/09/2014	01/10/2014	01/10/2014	02/16/2018	02/16/2018	02/16/2018	01/13/2014	01/14/2014
			Field Sample ID	M347B7	M347B7X	M348A1	M348A1X	D0109148	M348A2X	M348A2	M348A2	D0216188	M348B3	M348B3X	M381A1	M381A1X
			SDG	CS648	CS648	CP171	CP173	CP252	CP252	CP254	CP255	CQ978	CQ978	CQ978	CS053	CS053
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	REG	REG	FD	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	10.93	11.28	11.82	11.82	-	-	-	-	-	1.64	2.42
DO	mg/L	N	NS	-	-	10.5	9.95	9.65	9.65	-	-	-	-	-	6.14	3.27
ORP	millivolts	N	NS	-	-	-106.2	-105	-40.1	-40.1	-	-	-	-	-	59	36
pH	pH Units	N	NS	-	-	6.70	6.90	6.89	6.89	-	-	-	-	-	5.69	5.42
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	137000	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	1700U	-	-	-	-	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	137000	-	-	-	-	-	-	-	-	-	-	10400
Arsenic	ug/L	N	3	33.7	-	4.8	-	-	-	8.4	-	9.3	9.7	-	2.4	-
Arsenic	ug/L	Y	3	32.9	-	1.6J	-	-	-	-	3.7	8.2	7.8	-	-	-
Benzene	ug/L	N	1	-	-	-	0.5U	0.5U	0.5U	-	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	11400	-	17900	-	-	-	17700	-	145J	130J	-	26900	-
Iron	ug/L	Y	300	-	-	15700	-	-	-	-	15300	80.5U	80.5U	-	18100	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	170	-	-	-	-	-	-	-	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	37300	-	2500J	1500U	1500U	-	-	402000	-	428000	-	130000
Sulfide	ug/L	N	NS	-	700U	-	-	-	-	-	-	-	-	-	-	600U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-381	MW-381	MW-381	MW-381	MW-381	MW-381	MW-381	MW-381	MW-381	MW-381	MW-381	MW-381	MW-381
			Sample Date	04/17/2014	04/18/2014	07/14/2014	07/15/2014	04/14/2015	04/15/2015	06/24/2015	06/25/2015	09/02/2015	09/03/2015	11/04/2015	11/05/2015	12/06/2017
			Field Sample ID	M381A2	M381A2X	M381A3	M381A3X	M381A4	M381A4X	M381A5	M381A5X	M381A6	M381A6X	M381A7	M381A7X	M381B2
			SDG	CS088	CS088	CS125	CS125	CS220	CS220	CS254	CS254	CS282	CS282	CS309	CS309	CS625
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.97	3.99	0.38	4.91	-0.8	7.42	-	8.67	-	4.26	-	8.32	-
DO	mg/L	N	NS	6.42	2.87	5.83	2.78	8.04	2.98	-	9.51	-	9.05	-	8.24	-
ORP	millivolts	N	NS	-84	-295	128	207	61	94	-	-4	-	1060	-	43	-
pH	pH Units	N	NS	6.20	5.28	5.46	5.51	5.20	5.15	-	5.77	-	6.90	-	5.68	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	33100	-	23000	-	22200	-	9200	-	2600	-	700U	-
Arsenic	ug/L	N	3	4.6	-	3.1	-	0.82U	-	0.85J	-	0.54U	-	0.54U	-	0.81J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	37900	-	52300	-	14100	-	27800	-	30100	-	16500	-	26300
Iron	ug/L	Y	300	25800	-	47100	-	13900	-	25100	-	27900	-	15400	-	23600
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	990	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	135000	-	12500U	-	108000	-	103000	-	105000	-	108000	-
Sulfide	ug/L	N	NS	-	600U	-	600U	-	680U	-	680U	-	680U	-	680U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-381	MW-382	MW-382	MW-382	MW-382	MW-382	MW-382	MW-382	MW-382	MW-382	MW-382	MW-382	MW-382
			Sample Date	12/07/2017	01/13/2014	01/14/2014	04/17/2014	04/18/2014	07/14/2014	07/15/2014	04/14/2015	04/15/2015	06/24/2015	06/24/2015	06/25/2015	06/25/2015
			Field Sample ID	M381B2X	M382A1	M382A1X	M382A2	M382A2X	M382A3	M382A3X	M382A4	M382A4X	D0624151	M382A5	D0625151	M382A5X
			SDG	CS625	CS053	CS053	CS088	CS088	CS125	CS125	CS220	CS220	CS254	CS254	CS254	CS254
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	FD	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.2	1.31	1.72	2.7	3.62	0.5	-0.1	-0.75	1.93	-	-	6.32	6.32
DO	mg/L	N	NS	5.72	7.68	5.11	7.39	4.35	9.08	4.67	7.03	4.41	-	-	4.73	4.73
ORP	millivolts	N	NS	90	130	19	-166	-417	32	28	-62	-87	-	-	45	45
pH	pH Units	N	NS	5.99	6.75	6.76	7.00	6.78	6.82	5.95	6.62	6.66	-	-	6.63	6.63
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	1700U	-	700U	-	700U	-	700U	-	700U	-	-	700U	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	1700U	-	122000	-	116000	-	98500	-	137000	-	-	110000	109000
Arsenic	ug/L	N	3	-	1.0J	-	1.6J	-	2.9	-	1.3J	-	0.82U	0.82U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	0.5U
Iron	ug/L	N	300	-	29200	-	32400	-	33400	-	1230	-	1810	1600	-	-
Iron	ug/L	Y	300	-	28700	-	31000	-	32200	-	680	-	1060	1240	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	47J	-	-	290	290
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	110000	-	5000U	-	5000U	-	2500U	-	5800J	-	-	15900	17400
Sulfide	ug/L	N	NS	700U	-	600U	-	600U	-	600U	-	680U	-	-	680U	680U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-382	MW-382	MW-382	MW-382	MW-382	MW-382	MW-384	MW-384	MW-384	MW-384	MW-384	MW-384	MW-384
			Sample Date	08/31/2015	09/01/2015	11/02/2015	11/03/2015	12/06/2017	12/07/2017	01/13/2014	01/14/2014	04/17/2014	04/18/2014	07/14/2014	07/15/2014	06/24/2015
			Field Sample ID	M382A6	M382A6X	M382A7	M382A7X	M382B2	M382B2X	M384A1	M384A1X	M384A2	M384A2X	M384A3	M384A3X	M384A4
			SDG	CS281	CS281	CS307	CS307	CS625	CS625	CS053	CS053	CS088	CS088	CS125	CS125	CS254
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	0.07	-	1.19	-	-	4.07	5.8	3.66	6.43	0.37	0.02	-
DO	mg/L	N	NS	-	11.39	-	11.18	-	10.34	8.11	5.13	9.57	5.71	9.38	5.21	-
ORP	millivolts	N	NS	-	1106	-	-149	-	14	168	47	-62	-199	111	104	-
pH	pH Units	N	NS	-	7.88	-	6.43	-	7.28	5.86	6.23	6.68	6.10	6.92	5.99	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	1700U	-	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	122000	-	129000	-	144000	-	58700	-	77000	-	104000	-
Arsenic	ug/L	N	3	1.5J	-	3.8J	-	13.5	-	2.2	-	1.7J	-	5.1	-	4.6
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	6240	-	43100	-	57700	-	1920	-	1170	-	6760	-	940
Iron	ug/L	Y	300	8020	-	42500	-	55500	-	68.5J	-	43.0U	-	5340	-	902
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	2500	-	530	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	3500J	-	189000	-	2500U	-	146000	-	91700	-	21600J	-
Sulfide	ug/L	N	NS	-	680U	-	680U	-	700U	-	600U	-	1200U	-	600U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-384	MW-384	MW-384	MW-384	MW-384	MW-384	MW-384	MW-384	MW-384	MW-385	MW-385	MW-385	MW-385
			Sample Date	06/25/2015	08/31/2015	09/01/2015	11/02/2015	11/02/2015	11/03/2015	11/03/2015	12/06/2017	12/07/2017	10/28/2013	10/28/2013	01/08/2014	01/10/2014
			Field Sample ID	M384A4X	M384A5	M384A5X	D1102151	M384A6	D1103151	M384A6X	M384B1	M384B1X	M385A1	M385A1X	M385A2X	M385A2
			SDG	CS254	CS281	CS281	CS307	CS307	CS307	CS307	CS625	CS625	CP168	CP168	CP251	CP254
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	3.03	-	-	3.63	3.63	-	3.09	6.89	6.89	10.29	-
DO	mg/L	N	NS	-	-	11.85	-	-	6.08	6.08	-	11.86	8.4	8.4	11.8	-
ORP	millivolts	N	NS	-	-	983	-	-	295	295	-	44	-93	-93	-87.8	-
pH	pH Units	N	NS	-	-	7.42	-	-	6.02	6.02	-	7.09	6.82	6.82	6.70	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	-	700U	700U	-	1700U	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	92800	-	178000	-	-	142000	137000	-	119000	-	-	-	-
Arsenic	ug/L	N	3	-	5.0	-	4.1J	4.2J	-	-	2.7	-	46.1	-	-	26.9
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	36.4	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	-
Iron	ug/L	N	300	-	17500	-	5400	5790	-	-	6750	-	30000	-	-	25200
Iron	ug/L	Y	300	-	16300	-	5910	5590	-	-	7520	-	23800	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	-	40U	40U	-	40U	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	74000	-	5000U	-	-	47600	40600	-	48800	-	67200	26200	-
Sulfide	ug/L	N	NS	2100	-	680U	-	-	680U	680U	-	700U	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-385	MW-385	MW-386	MW-386	MW-386	MW-386	MW-386	MW-386	MW-386	MW-386	MW-386	MW-386	MW-386
			Sample Date	01/10/2014	02/16/2018	11/07/2013	11/07/2013	12/20/2013	12/20/2013	06/23/2014	03/16/2015	06/29/2015	07/20/2015	07/20/2015	07/20/2015	10/05/2015
			Field Sample ID	M385A2	M385B3X	M386A1	M386A1X	M386A2	M386A2X	M386A3X	M386A4	M386A5	M386A6	M386A6	M386A6X	M386A7
			SDG	CP255	CQ978	CP190	CP190	CP249	CP249	CP379	CP668	CP761	CP786	CP787	CP786	CP859
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	0.88	0.88	3.31	0.86	-	0	0	0	-
DO	mg/L	N	NS	-	-	-	-	5.8	5.8	5.33	5.37	-	5.61	5.61	5.61	-
ORP	millivolts	N	NS	-	-	-	-	-136.5	-136.5	-116.5	-116.5	-	-156	-156	-156	-
pH	pH Units	N	NS	-	-	-	-	6.98	6.98	6.47	7.10	-	7.44	7.44	7.44	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	116	-	92.9	-	-	55.0	91.8	107	-	-	157J-
Arsenic	ug/L	Y	3	23.8	-	117	-	88.1	-	-	-	-	-	115	-	-
Benzene	ug/L	N	1	-	0.5U	-	6	-	8	0.7J	-	-	-	-	10J	-
Iron	ug/L	N	300	-	-	43700	-	43500	-	-	37900	137000	132000	-	-	91400J-
Iron	ug/L	Y	300	24400	-	44200	-	42200	-	-	-	-	-	133000	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	20000	22000	-	-	-	16000J-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	250U	250U	-	-	-	250UJ
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	31300	-	6200	-	3500J	-	2000J	4810000	-	-	530000	7350000J-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	54U	680U	-	-	-	1100J-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-386	MW-386	MW-386R	MW-386R	MW-387	MW-387	MW-387	MW-387	MW-387	MW-387	MW-387	MW-387	MW-387
			Sample Date	10/29/2015	10/29/2015	12/05/2017	12/05/2017	11/07/2013	11/07/2013	12/19/2013	12/19/2013	12/19/2013	12/19/2013	12/19/2013	07/20/2015	07/20/2015
			Field Sample ID	M386A8	M386A8X	M386RB7	M386RB7X	M387A1	M387A1X	D1219138	D1219138	M387A2	M387A2	M387A2X	D0720158	D0720158
			SDG	CP915	CP915	CQ914	CQ914	CP190	CP190	CP246	CP247	CP246	CP247	CP246	CP786	CP787
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	FD	FD	REG	REG	REG	FD	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.44	0.44	-	-	14.8	14.8	0.85	0.85	0.85	0.85	0.85	0.63	0.63
DO	mg/L	N	NS	5.96	5.96	-	-	10.28	10.28	13.2	13.2	13.2	13.2	13.2	7.55	7.55
ORP	millivolts	N	NS	-148.6	-148.6	-	-	-104	-104	-49.4	-49.4	-49.4	-49.4	-49.4	-184	-184
pH	pH Units	N	NS	6.99	6.99	-	-	7.23	7.23	7.12	7.12	7.12	7.12	7.12	12.81	12.81
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	160	-	7.7	-	30.8	-	8.9	-	8.6	-	-	455	-
Arsenic	ug/L	Y	3	162	-	8.3	-	28.5	-	-	7.1	-	6.9	-	-	422
Benzene	ug/L	N	1	-	180	-	47	-	670	190	-	-	-	200	340J	-
Iron	ug/L	N	300	81600	-	2880	-	14700	-	3990	-	3820	-	-	1410	-
Iron	ug/L	Y	300	80500	-	2480	-	11800	-	-	3080	-	3060	-	-	327
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	5340000	-	1140000	-	179000	133000	-	-	-	141000	39900000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-387	MW-387	MW-387	MW-387	MW-387	MW-387	MW-387	MW-387R	MW-387R	MW-388	MW-388	MW-388	MW-388
			Sample Date	07/20/2015	07/20/2015	07/20/2015	10/30/2015	10/30/2015	10/30/2015	10/30/2015	12/06/2017	12/06/2017	11/07/2013	11/07/2013	12/19/2013	12/19/2013
			Field Sample ID	M387A4	M387A4	M387A4X	D1030158A	M387A5	M387A5X	M387A5XA	M387RB4	M387RB4X	M388A1	M388A1X	M388A2	M388A2
			SDG	CP786	CP787	CP786	CP916	CP916	CP916	CP916	CQ916	CQ916	CP190	CP190	CP246	CP247
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.63	0.63	0.63	0.38	0.38	0.38	0.38	1.49	1.49	8.03	8.03	1.04	1.04
DO	mg/L	N	NS	7.55	7.55	7.55	8.52	8.52	8.52	8.52	6.25	6.25	7.15	7.15	6.79	6.79
ORP	millivolts	N	NS	-184	-184	-184	370.3	370.3	370.3	370.3	-83.9	-83.9	-125	-125	-121.9	-121.9
pH	pH Units	N	NS	12.81	12.81	12.81	7.11	7.11	7.11	7.11	7.06	7.06	6.79	6.79	6.95	6.95
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	163000	-	-	-	-
Arsenic	ug/L	N	3	450J	-	-	41.9	50.1	-	-	7.3	-	18.5	-	14.7	-
Arsenic	ug/L	Y	3	-	503	-	16.8UJ	21.2J	-	-	5.9	-	17.6	-	-	12.2
Benzene	ug/L	N	1	-	-	360J	74	-	83	57J	-	0.5U	-	0.5U	-	-
Iron	ug/L	N	300	714J	-	-	25700	16300	-	-	5270	-	17700	-	14800	-
Iron	ug/L	Y	300	-	347	-	498	500	-	-	4330	-	15900	-	-	12500
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	40U	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	43400000	44700000	-	40500000J+	-	-	421000	-	1500U	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	700U	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-388	MW-388	MW-388	MW-388	MW-388	MW-388	MW-388	MW-388	MW-389	MW-389	MW-389	MW-389	MW-389
			Sample Date	12/19/2013	03/17/2015	06/29/2015	07/20/2015	10/05/2015	10/29/2015	12/05/2017	12/05/2017	11/05/2013	11/05/2013	12/20/2013	12/20/2013	03/18/2015
			Field Sample ID	M388A2X	M388A3	M388A4	M388A5X	M388A6	M388A7X	M388B6	M388B6X	M389A1	M389A1X	M389A2	M389A2X	M389A3
			SDG	CP246	CP669	CP761	CP786	CP859	CP915	CQ914	CQ914	CP183	CP183	CP249	CP249	CP669
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.04	79.1	-	0	-	0.4	-	-	1.83	1.83	0.93	0.93	3.1
DO	mg/L	N	NS	6.79	5.75	-	6.05	-	6.71	-	-	8.33	8.33	7.92	7.92	7.21
ORP	millivolts	N	NS	-121.9	-52.2	-	-123	-	-114.9	-	-	-126	-126	-100.4	-100.4	-155.5
pH	pH Units	N	NS	6.95	7.04	-	7.33	-	6.80	-	-	6.47	6.47	6.68	6.68	6.98
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	6.9	20.6	-	18.9J-	-	13.5	-	57.1	-	45.2	-	44.4
Arsenic	ug/L	Y	3	-	-	-	-	-	-	11.8	-	60.5	-	43.9	-	-
Benzene	ug/L	N	1	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	5260	13800	-	8810J-	-	8160	-	57900	-	74200	-	59300
Iron	ug/L	Y	300	-	-	-	-	-	-	6410	-	52900	-	73700	-	-
Methane	ug/L	N	NS	-	12000	16000	-	15000J-	-	-	-	-	-	-	-	21000
Nitrogen, Nitrate as N	ug/L	N	10000	-	540J-	250U	-	250UJ	-	-	-	-	-	-	-	250U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	9100	24600	11900	3500J	35200J+	7900	-	4800J	-	3600J	-	2000J	1500U
Sulfide	ug/L	N	NS	-	680U	680U	-	680UJ	-	-	-	-	-	-	-	680U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-389	MW-389	MW-389	MW-389	MW-389	MW-389	MW-400	MW-400	MW-400	MW-400	MW-400	MW-401	MW-401R
			Sample Date	06/30/2015	07/20/2015	10/06/2015	10/28/2015	12/06/2017	12/07/2017	02/19/2018	02/19/2018	04/17/2018	04/17/2018	04/17/2018	08/24/2015	11/15/2017
			Field Sample ID	M389A4	M389A5X	M389A6	M389A7X	M389B6	M389B6X	D0219188	M400A4X	D0417188	M400A5	M400A5X	M401A1X	D1115178
			SDG	CP765	CP786	CP860	CP907	CQ916	CQ919	CQ985	CQ985	CR034	CR034	CR034	CP819	CQ889
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	FD	REG	FD	REG	REG	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	0.96	-	-	-	-	-	4.85	2.32
DO	mg/L	N	NS	-	-	-	-	-	7.54	-	-	-	-	-	NM	3.65
ORP	millivolts	N	NS	-	-	-	-	-	-108.4	-	-	-	-	-	-79.8	-123.8
pH	pH Units	N	NS	-	-	-	-	-	7.14	-	-	-	-	-	6.41	7.72
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	21.5	-	31.7	-	16.3	-	-	-	34.3	34.3	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	16.1	-	-	-	36.3	34.2	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	5U	-	0.5U	500	480	600	-	630	12000	360
Iron	ug/L	N	300	72700	-	302000	-	29500	-	-	-	21200	19700	-	-	-
Iron	ug/L	Y	300	-	-	-	-	28500	-	-	-	20500	22100	-	-	-
Methane	ug/L	N	NS	20000	-	12000	-	-	-	-	-	11000	-	9700	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	250U	-	250U	-	-	-	96J	100J	290	-	270	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	605000	201000	11700000	8430000	-	32500	611000	523000J	88000	-	101000	-	-
Sulfide	ug/L	N	NS	680U	-	1100J	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-401R	MW-401R	MW-401R	MW-408	MW-408	MW-408	MW-409	MW-409R	MW-409R	MW-409R	MW-409R	MW-409R	MW-410
			Sample Date	11/15/2017	03/05/2018	03/05/2018	04/13/2018	04/13/2018	04/13/2018	12/03/2014	10/17/2017	01/22/2018	02/20/2018	02/20/2018	04/13/2018	08/19/2014
			Field Sample ID	M401RA5X	D0305188	M401RA6X	D0413188	M408A3	M408A3X	M409A1X	M409RA8	M409RA9X	M409RB1	M409RB1X	M409RB2	M410A1
			SDG	CQ889	CQ992	CQ992	CR030	CR030	CR030	CP611	CQ819	CQ946	CQ986	CQ986	CR030	CP472
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.32	-	-	-	-	-	-	6.01	-	-	-	-	1.06
DO	mg/L	N	NS	3.65	-	-	-	-	-	-	5.8	-	-	-	-	7.36
ORP	millivolts	N	NS	-123.8	-	-	-	-	-	-	214	-	-	-	-	-130.1
pH	pH Units	N	NS	7.72	-	-	-	-	-	-	7.01	-	-	-	-	6.75
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	8.7	9.4	-	-	-	-	2.7	-	0.72U	120
Arsenic	ug/L	Y	3	-	-	-	9.7	9.7	-	-	-	-	0.72U	-	0.72U	-
Benzene	ug/L	N	1	380	250J	350J	320	-	270	27	0.5U	0.5U	-	-	-	-
Iron	ug/L	N	300	-	-	-	20500	20600	-	-	-	-	3730	-	80.5U	39200
Iron	ug/L	Y	300	-	-	-	20400	19400	-	-	-	-	80.5U	-	80.5U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	5600J	-	5400J-	98100	-	-	-	181000	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	600U	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-410	MW-410	MW-410	MW-410	MW-410	MW-410	MW-410	MW-410	MW-411	MW-411	MW-411	MW-411	MW-411
			Sample Date	08/19/2014	11/10/2014	12/23/2014	12/23/2014	01/21/2015	03/10/2015	10/26/2017	03/29/2018	08/18/2014	08/18/2014	08/18/2014	11/11/2014	12/22/2014
			Field Sample ID	M410A1X	M410A2	D12231415	M410A6	M410A8	M410A9	M410B5	M410B6	M411A1	M411A1	M411A1X	M411A2	M411A6
			SDG	CP472	CP585	CP631	CP631	CP650	CP663	CQ845	CR012	CP467	CP477	CP477	CP587	CP629
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.06	2.12	0.55	0.55	0.78	6.98	-	-	1.06	1.06	1.06	0.42	-
DO	mg/L	N	NS	7.36	7.53	7.12	7.12	7.31	7.33	-	-	7.39	7.39	7.39	7.7	-
ORP	millivolts	N	NS	-130.1	-117.3	-101.1	-101.1	-110.2	71.4	-	-	-131	-131	-131	-116.7	-
pH	pH Units	N	NS	6.75	6.76	6.68	6.68	6.63	6.93	-	-	6.55	6.55	6.55	6.82	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	332000	331000	314000	263000	308000	305000	-	-	-	-	192000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	293000	-	332000	331000	314000	263000	308000	305000	-	-	296000	-	192000
Arsenic	ug/L	N	3	-	127	106	107	89.3	51.4	103	35.2	-	124	-	82.4	44.6
Arsenic	ug/L	Y	3	-	127	105	103	85.5	42.5	92.5	34.6	127	-	-	85.1	47.8
Benzene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	41800	41100	40700	37600	22900	41000	39700	-	48100	-	34300	135000
Iron	ug/L	Y	300	-	41000	40500	39700	38100	17300	39300	39500	48000	-	-	34200	139000
Methane	ug/L	N	NS	10000	-	-	-	-	-	-	-	-	-	1400	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	250U	-	-	-	-	-	250U	250U	-	-	250U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1500U	1500U	1500U	1500U	1500U	8300	1500U	1500U	-	-	5200	3600J	261000
Sulfide	ug/L	N	NS	-	600J	600U	600U	600U	680U	700U	700U	-	-	-	600U	810J
Sulfide	ug/L	Y	NS	54U	-	-	-	-	-	-	-	-	-	54U	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-411	MW-411	MW-411	MW-411	MW-411	MW-411	MW-412	MW-412	MW-412	MW-412	MW-412	MW-412	MW-412
			Sample Date	01/23/2015	03/06/2015	07/01/2015	10/31/2017	03/26/2018	03/26/2018	08/18/2014	08/18/2014	08/18/2014	11/11/2014	12/22/2014	01/23/2015	03/11/2015
			Field Sample ID	M411A7	M411A8	M411A9	M411B5	D03261815	M411B6	M412A1	M412A1	M412A1X	M412A2	M412A7	M412A8	M412A9
			SDG	CP653	CP661	CP766	CQ856	CR007	CR007	CP467	CP477	CP477	CP587	CP629	CP655	CP665
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	12.38	1.77	-	-	-	1.04	1.04	1.04	0.21	-	0.58	5.06
DO	mg/L	N	NS	-	7.5	6.92	-	-	-	4.15	4.15	4.15	4.35	-	4.08	3.94
ORP	millivolts	N	NS	-	-122.4	-111	-	-	-	-126.3	-126.3	-126.3	-88.4	-	-92.6	17.1
pH	pH Units	N	NS	-	6.94	6.81	-	-	-	6.74	6.74	6.74	6.82	-	7.04	6.63
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	256000	274000	281000	282000	-	296000	-	-	-	-	189000	246000	76800
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	256000	274000	281000	282000	-	296000	-	-	272000	-	189000	246000	76800
Arsenic	ug/L	N	3	47.5	49.0	106	87.1J	24.2	22.7J	-	227	-	73.6	85.0	28.3	9.7
Arsenic	ug/L	Y	3	44.8	45.1	105	95.1J	23.8	23.1	226	-	-	72.8	72.6	28.5	6.3
Benzene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	70600	59700	46800	34600	39500	38900	-	36800	-	21000	64500	49700	12000
Iron	ug/L	Y	300	71300	61600	47100	34900	39300	39300	35200	-	-	21400	82900	45800	10100
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	7400	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	250U	250U	-	250U	-	-	250U	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	19300	6100	1500U	1500U	-	23400	-	-	2200J	4300J	182000	28300	15500
Sulfide	ug/L	N	NS	600U	680U	680U	700U	-	700U	-	-	-	600U	600U	600U	680U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	54U	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-412	MW-412	MW-412	MW-412	MW-413	MW-413	MW-413	MW-413	MW-413	MW-413	MW-413	MW-413	MW-413
			Sample Date	07/01/2015	10/26/2015	10/31/2017	03/23/2018	08/18/2014	08/18/2014	08/18/2014	11/11/2014	12/22/2014	01/23/2015	03/11/2015	07/01/2015	10/26/2015
			Field Sample ID	M412B1	M412B2	M412B7	M412B8	M413A1	M413A1	M413A1X	M413A2	M413A6	M413A7	M413A8	M413A9	M413B1
			SDG	CP766	CP900	CQ856	CR006	CP467	CP477	CP477	CP587	CP629	CP655	CP665	CP766	CP900
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.96	0	-	-	1.1	1.1	1.1	0.24	-	0.81	5.65	4.42	0.82
DO	mg/L	N	NS	3.64	4.67	-	-	9.55	9.55	9.55	4.75	-	4.5	4.44	3.99	5.03
ORP	millivolts	N	NS	-110	-142	-	-	-128	-128	-128	-121	-	-108.3	-97.8	-92.3	-137
pH	pH Units	N	NS	6.92	6.86	-	-	6.73	6.73	6.73	6.83	-	6.89	6.79	6.88	6.84
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	277000	306000	302000	236000	-	-	-	-	185000	236000	260000	272000	279000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	277000	306000	302000	236000	-	-	274000	-	185000	236000	260000	272000	279000
Arsenic	ug/L	N	3	73.9	43.3	57.7J	28	-	97.8	-	105	20.6	19.9	24.2	60.8	98.2
Arsenic	ug/L	Y	3	70.8	46.1	52.1J	25.7	116	-	-	98.0	20.7	20.7	21.2	80.0	89.8
Benzene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	46700	45400	36400	26700	-	43200	-	37700	131000	92100	56700	44200	44300
Iron	ug/L	Y	300	43800	42900	34900	28000	38500	-	-	37200	135000	89600	54900	39900	42400
Methane	ug/L	N	NS	-	-	-	-	-	-	9000	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	250U	250U	250U	250U	-	-	250U	-	-	-	-	250U	250U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1500U	1500U	3000J	3600J	-	-	2900J	1500U	279000	156000	15300	3000J	1500U
Sulfide	ug/L	N	NS	680U	680U	700U	700U	-	-	-	600U	710J	600U	680U	680U	680U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	54U	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-413	MW-413	MW-425	MW-425	MW-425	MW-425	MW-426	MW-426	MW-427	MW-427	MW-427	MW-427	MW-428
			Sample Date	10/30/2017	03/23/2018	08/26/2015	10/27/2015	10/24/2017	03/28/2018	08/28/2015	10/24/2017	08/24/2015	10/29/2015	11/02/2017	04/11/2018	08/28/2015
			Field Sample ID	M413B5	M413B6	M425A1	M425A2	M425A6	M425A7	M426A1	M426A6	M427A1	M427A2	M427A6	M427A7	M428A1
			SDG	CQ851	CR006	CP827	CP909	CQ835	CR011	CP831	CQ835	CP821	CP913	CQ863	CR027	CP831
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	284000	259000	383000	384000	346000	354000	269000	267000	189000	226000	258000	221000	255000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	284000	259000	383000	384000	346000	354000	269000	267000	189000	226000	258000	221000	255000
Arsenic	ug/L	N	3	94	43.8	137	136	123	49.5	11.2	13.8	119	76.7	127	61.4	12.6
Arsenic	ug/L	Y	3	92.3	30.8	131	122	121	55.8	7.5	9.3	114	75.6	125	56.7	9.9
Benzene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	33100	29200	20400	15600	15300	17800	13000	15300	6150	5540	15500	12700	25500
Iron	ug/L	Y	300	32800	25100	19900	15200	14900	19300	10100	13900	4720	5030	13900	10700	23500
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	250U	250U	250U	-	250U	250U	250U	250U	250U	250U	250U	250U	280J
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1500U	6600	19600	1500U	1500U	3700J-	43400	1800J	22600	12900	1900J	2700J	8400
Sulfide	ug/L	N	NS	700U	700U	680U	680U	700U	700U	680U	700U	680U	680U	700U	700U	680U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-428	MW-428	MW-429	MW-429	MW-430	MW-430	MW-430	MW-431	MW-431	MW-431	MW-431	MW-432	MW-432
			Sample Date	10/29/2015	11/03/2017	08/26/2015	10/26/2015	08/25/2015	08/25/2015	10/29/2015	08/27/2015	10/26/2015	10/23/2017	03/27/2018	08/24/2015	10/29/2015
			Field Sample ID	M428A2	M428A6	M429A1	M429A2	D08251515	M430A1	M430A2	M431A1	M431A2	M431A6	M431A7	M432A1	M432A2
			SDG	CP913	CQ866	CP827	CP900	CP825	CP825	CP913	CP829	CP900	CQ833	CR009	CP821	CP913
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	320000	458000	327000	311000	-	266000	278000	400000	422000	455000	452000	277000	293000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	320000	458000	327000	311000	-	266000	278000	400000	422000	455000	452000	277000	293000
Arsenic	ug/L	N	3	9.8	8.1	47.3	50.2	37.7	38.3	29.2	3.7	3.1	2.4	149	73.4	74.6
Arsenic	ug/L	Y	3	9.9	9.4	37.6	45.1	32.3	33.1	1.3J	6.6	2.1	1.6J	131	76.4	64.3
Benzene	ug/L	N	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	23900	19500	33400	39600	21700	21700	17700	49700	50400	45900	42700	32100	35100
Iron	ug/L	Y	300	23800	20100	30800	38200	21800	21000	33.3U	47900	50500	45900	42700	30600	32600
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	250U	250U	250U	250U	-	250U	250U	250U	250U	250U	250U	250U	250U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1500U	2100J	3500J	1500U	-	3400J	1500U	2400J	1500U	1500U	129000	19300	9000
Sulfide	ug/L	N	NS	680U	700U	680U	680U	-	680U	680U	680U	680U	700U	700U	680U	680U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-443	MW-443	MW-443	MW-443	MW-443	MW-443	MW-443	MW-444	MW-444	MW-446R	MW-446R	MW-446R	MW-446R
			Sample Date	10/17/2017	10/17/2017	01/22/2018	02/19/2018	02/19/2018	04/12/2018	04/12/2018	02/20/2018	02/20/2018	10/17/2017	01/23/2018	01/23/2018	04/13/2018
			Field Sample ID	D1017178	M443A7	M443A8X	M443A9	M443A9X	M443B1	M443B1X	M444A2	M444A2X	M446RA8	D0123188	M446RA9X	M446RB1
			SDG	CQ819	CQ819	CQ946	CQ981	CQ981	CR029	CR029	CQ986	CQ986	CQ819	CQ948	CQ948	CR030
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.47	2.47	-	-	-	-	-	-	-	2.36	-	-	-
DO	mg/L	N	NS	7.5	7.5	-	-	-	-	-	-	-	6.8	-	-	-
ORP	millivolts	N	NS	-81	-81	-	-	-	-	-	-	-	-30.6	-	-	-
pH	pH Units	N	NS	6.71	6.71	-	-	-	-	-	-	-	7.13	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	2.7	-	1.5J	-	7.4	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	2.7	-	0.82J	-	7.2	-	-	-	-	-
Benzene	ug/L	N	1	15J	10J	7	-	-	-	24	-	35	0.5U	0.5U	0.5U	2
Iron	ug/L	N	300	-	-	-	10800	-	12000	-	29700	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	9260	-	10700	-	28800	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	76900	-	92900	-	1500U	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-447	MW-447	MW-447	MW-448	MW-448	MW-448	MW-448	MW-449	MW-449	MW-449	MW-449	MW-450	MW-450
			Sample Date	02/21/2018	02/21/2018	02/21/2018	01/19/2018	01/19/2018	04/10/2018	04/10/2018	01/30/2018	01/30/2018	04/10/2018	04/10/2018	01/19/2018	01/19/2018
			Field Sample ID	D0221188	M447A2	M447A2X	M448A4	M448A4X	M448A5	M448A5X	M449A5	M449A5X	M449A6	M449A6X	M450A4	M450A4X
			SDG	CQ990	CQ990	CQ990	CQ945	CQ945	CR026	CR026	CQ957	CQ957	CR026	CR026	CQ945	CQ945
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	0.6	0.6	-	-	18.72	18.72	-	-	1.24	1.24
DO	mg/L	N	NS	-	-	-	6.9	6.9	-	-	6.84	6.84	-	-	6.2	6.2
ORP	millivolts	N	NS	-	-	-	-147.7	-147.7	-	-	169.9	169.9	-	-	-80.4	-80.4
pH	pH Units	N	NS	-	-	-	7.80	7.80	-	-	10.51	10.51	-	-	7.17	7.17
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	253000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	253000
Arsenic	ug/L	N	3	22.4	21.3	-	24	-	4.3	-	42	-	28.9J	-	2	-
Arsenic	ug/L	Y	3	21	22.2	-	22.8	-	3.2	-	46.3	-	55.7J	-	0.72U	-
Benzene	ug/L	N	1	70	-	51	-	1U	-	0.5U	-	120J	-	93	-	0.5U
Iron	ug/L	N	300	18400	17000	-	51600	-	3380	-	250	-	777	-	7510	-
Iron	ug/L	Y	300	18300	18300	-	51100	-	1530	-	80.5U	-	205	-	7550	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	250U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	28900	-	28600	-	1390000	-	533000	-	30500000	-	7150000	-	245000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	2800U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-450	MW-450	MW-451	MW-451	MW-451	MW-451	MW-451	MW-452	MW-452	MW-452	MW-452	MW-452	MW-452
			Sample Date	04/09/2018	04/09/2018	01/18/2018	01/18/2018	01/18/2018	04/10/2018	04/10/2018	09/08/2017	09/08/2017	01/19/2018	01/19/2018	04/10/2018	04/10/2018
			Field Sample ID	M450A5	M450A5X	D0118188	M451A4	M451A4X	M451A5	M451A5X	D0908178A	M452A4X	M452A5	M452A5X	M452A6	M452A6X
			SDG	CR025	CR025	CQ944	CQ944	CQ944	CR026	CR026	CQ761	CQ761	CQ945	CQ945	CR026	CR026
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	0.3	0.3	0.3	-	-	6.08	6.08	9.31	9.31	-	-
DO	mg/L	N	NS	-	-	9.04	9.04	9.04	-	-	3.66	3.66	6.41	6.41	-	-
ORP	millivolts	N	NS	-	-	-92	-92	-92	-	-	451.9	451.9	134.8	134.8	-	-
pH	pH Units	N	NS	-	-	6.97	6.97	6.97	-	-	13.67	13.67	8.97	8.97	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	692000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	3190000	-	-
Arsenic	ug/L	N	3	2J	-	10.2	9.5	-	8.1	-	-	-	1040	-	28.4J	-
Arsenic	ug/L	Y	3	1.2J	-	9.9	9.6	-	8	-	-	-	1160	-	27.8J	-
Benzene	ug/L	N	1	-	0.5U	2	-	2	-	0.9J	25UJ	25UJ	-	23J	-	110
Iron	ug/L	N	300	10600	-	3320	3000J+	-	5510	-	-	-	11600	-	332	-
Iron	ug/L	Y	300	8880	-	3100	2960	-	5170	-	-	-	80.5U	-	106UJ	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	250U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	483000	17100	-	16900	-	15500	-	-	-	1210000	-	3360000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	700U	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-453	MW-453	MW-453	MW-453	MW-455	MW-455	MW-455	MW-455	MW-455	MW-456	MW-457	MW-458	MW-458
			Sample Date	01/19/2018	01/19/2018	04/09/2018	04/09/2018	01/19/2018	01/19/2018	04/11/2018	04/11/2018	04/11/2018	10/29/2015	10/27/2015	10/27/2015	10/27/2015
			Field Sample ID	M453A4	M453A4X	M453A5	M453A5X	M455A5	M455A5X	D0411188	M455A6	M455A6X	M456A1	M457A1	D10271515B	M458A1
			SDG	CQ945	CQ945	CR025	CR025	CQ945	CQ945	CR028	CR028	CR028	CP914	CP903	CP903	CP903
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	FD	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.82	0.82	-	-	0.92	0.92	-	-	-	-	-	-	-
DO	mg/L	N	NS	7.11	7.11	-	-	7.78	7.78	-	-	-	-	-	-	-
ORP	millivolts	N	NS	320.3	320.3	-	-	-101.6	-101.6	-	-	-	-	-	-	-
pH	pH Units	N	NS	9.11	9.11	-	-	6.63	6.63	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	127000	549000	-	314000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	127000	549000	-	314000
Arsenic	ug/L	N	3	2J	-	1.5J	-	55	-	69.2	71.7	-	93.7	52.8	62.5	56.8
Arsenic	ug/L	Y	3	1.3J	-	1.3J	-	52.9	-	66.2J	67.9J	-	69.9	51.4	-	33.9
Benzene	ug/L	N	1	-	0.8J	-	3	-	6	10	-	14	-	-	-	-
Iron	ug/L	N	300	1360	-	150J	-	30900	-	51800	50200	-	3860	14200	29800	29900
Iron	ug/L	Y	300	80.5U	-	80.5U	-	30200	-	53100	53500	-	355	13900	-	24400
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	250U	250U	-	250U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	199000	-	374000	-	1500U	2400J	-	1900J	55300	38900	-	454000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	680U	680U	-	680U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-458	MW-458	MW-458	MW-458	MW-458	MW-458	MW-459	MW-460	MW-461	MW-462	MW-463	MW-464	MW-464
			Sample Date	10/20/2017	10/20/2017	10/20/2017	10/20/2017	01/10/2018	01/10/2018	10/27/2015	10/28/2015	10/29/2015	10/27/2015	10/28/2015	10/17/2017	01/22/2018
			Field Sample ID	D1020178	D1020178X	M458A9	M458A9X	M458B1	M458B1X	M459A1	M460A1	M461A1	M462A1	M463A2	M464A7	M464A8X
			SDG	CQ831	CQ831	CQ831	CQ831	CQ936	CQ936	CP903	CP910	CP914	CP903	CP910	CQ819	CQ946
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.51	1.51	1.51	1.51	0.85	0.85	-	-	-	-	-	-	-
DO	mg/L	N	NS	8	8	8	8	2.79	2.79	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-50.3	-50.3	-50.3	-50.3	-60.4	-60.4	-	-	-	-	-	-	-
pH	pH Units	N	NS	6.32	6.32	6.32	6.32	6.88	6.88	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	168000J-	302000	343000	270000	295000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	168000	302000	343000	270000	295000	-	-
Arsenic	ug/L	N	3	30.8	-	30.7	-	26J	-	5.7	45.9	9.3	54.9	10.6	-	-
Arsenic	ug/L	Y	3	20.1	-	20.6	-	9.6	-	5.9	34.5	6.8	60.9	9.9	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	-	-	-	-	19	9
Iron	ug/L	N	300	41200	-	40800	-	49300	-	12200	8090	16600	9960	7040	-	-
Iron	ug/L	Y	300	35800	-	35700	-	40200	-	12300	6250	15900	9680	5790	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	250U	250U	250U	250U	250U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	177000	-	192000	-	151000	14800	33300	27500	15800	49900	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	680U	680U	680U	680U	680U	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-464	MW-464	MW-464	MW-464	MW-465	MW-465	MW-465	MW-465	MW-468	MW-468	MW-469	MW-469	MW-470
			Sample Date	02/19/2018	02/19/2018	04/13/2018	04/13/2018	02/21/2018	02/21/2018	04/19/2018	04/19/2018	10/23/2017	03/23/2018	10/30/2017	03/29/2018	10/27/2017
			Field Sample ID	M464A9	M464A9X	M464B1	M464B1X	M465A2	M465A2X	M465A3	M465A3X	M468A5	M468A6	M469A5	M469A6	M470A5
			SDG	CQ981	CQ981	CR030	CR030	CQ990	CQ990	CR038	CR038	CQ833	CR006	CQ851	CR012	CQ847
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	2.31
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	7.9
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-49.6
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	6.43
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	294000	274000	196000	111000	226000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	294000	274000	196000	111000	226000
Arsenic	ug/L	N	3	5.4	-	6.4	-	17.7	-	25.3	-	103	65	118	40.8	877
Arsenic	ug/L	Y	3	4.9	-	5.4	-	17	-	23.3	-	104	61.1	39.2	15.6	881
Benzene	ug/L	N	1	-	-	-	18	-	43	-	61	-	-	-	-	-
Iron	ug/L	N	300	51300	-	48200	-	91600	-	44700	-	46900	61700	9700	3870	12600
Iron	ug/L	Y	300	47000	-	41000	-	90600	-	46700	-	46800	61500	3960	1140	13000
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	250U	-	320J	600	250U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	6500	-	17200	-	1500U	-	3300J	1500U	45100	15600	146000	14100
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	700U	700U	700U	700U	700U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-470	MW-471	MW-471	MW-472	MW-472	MW-472	MW-473	MW-475	MW-475	MW-478	MW-478	MW-479	MW-479
			Sample Date	03/19/2018	10/27/2017	03/19/2018	12/21/2015	11/01/2017	11/01/2017	03/06/2018	01/22/2018	01/22/2018	10/23/2017	03/27/2018	10/26/2017	03/27/2018
			Field Sample ID	M470A6	M471A5	M471A6	M472A1	D1101175	M472A5	M473A6X	M475A3	M475A3X	M478A4	M478A5	M479A4	M479A5
			SDG	CR004	CQ847	CR004	CP983	CQ860	CQ860	CQ994	CQ947	CQ947	CQ833	CR009	CQ845	CR009
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.83	-	-	-	-	-	-	0.92	0.92	-	-	-	-
DO	mg/L	N	NS	3.4	-	-	-	-	-	-	11.4	11.4	-	-	-	-
ORP	millivolts	N	NS	203.6	-	-	-	-	-	-	-116.6	-116.6	-	-	-	-
pH	pH Units	N	NS	5.14	-	-	-	-	-	-	6.86	6.86	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	78900	233000	82000	236000	-	321000	-	-	418000	244000	223000	261000	63200
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	78900	233000	82000	236000	-	321000	-	-	418000	244000	223000	261000	66500
Arsenic	ug/L	N	3	73.8	16.7	3.4	37	31.8J	32.5J	-	40.4	-	18.4	21.7	32.6	35.5
Arsenic	ug/L	Y	3	69.8	16.9	2.8	31.3	-	26.7J	-	41.5	-	10.6	9.8	35	27.3
Benzene	ug/L	N	1	-	-	-	-	-	-	0.5U	-	-	-	-	-	-
Iron	ug/L	N	300	80.5U	10500	223	16300	10000	10700	-	44400	-	20500	46300	27400	2300
Iron	ug/L	Y	300	80.5U	10100	80.5U	14700	-	9580	-	-	-	15800	43200	26900	236
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	250U	250U	500	250U	-	250U	-	-	250U	250U	250U	250U	250U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	200000	1500U	85900	565000	-	66900	-	-	2400J	3000J	73100	2200J	15100
Sulfide	ug/L	N	NS	700U	700U	700U	680U	-	700U	-	-	1400U	3400	-	700U	700U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-480	MW-480	MW-481	MW-481	MW-482	MW-490	MW-491	MW-499	MW-499	MW-499	MW-499	MW-499	MW-500
			Sample Date	10/24/2017	03/28/2018	10/25/2017	03/28/2018	10/25/2017	06/17/2016	06/17/2016	11/27/2017	11/27/2017	01/31/2018	01/31/2018	01/31/2018	11/16/2017
			Field Sample ID	M480A4	M480A5	M481A2	M481A3	M482A2	M490A1	M491A1	M499A1	M499A1X	M499A2	M499A2X	M499A2X	M500A1
			SDG	CQ835	CR011	CQ839	CR011	CQ839	CQ144	CQ144	CQ903	CQ903	CQ958	CQ958	CQ959	CQ893
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	6.21	6.21	6.21	5.27
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	6.28	6.28	6.28	6.33
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	64.8	64.8	64.8	-176.6
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	7.42	7.42	7.42	11.15
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	217000	251000	794000	480000	425000	424000	248000	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	217000	251000	794000	480000	425000	424000	248000	-	-	-	-	-	-
Arsenic	ug/L	N	3	38.5	38.5	33.3	8.4	178	16.7	27.9	0.72U	-	1UJ	-	-	0.93J
Arsenic	ug/L	Y	3	36.9	35.6	34.7	8.2	172	-	-	0.72U	-	1.1UJ	-	-	0.85J
Benzene	ug/L	N	1	-	-	-	-	-	-	-	-	0.5U	-	-	0.5U	-
Iron	ug/L	N	300	3020	8760	8120	9150	40800	28400	12600	142UJ	-	80.5U	-	-	84.9J
Iron	ug/L	Y	300	3000	8660	8120	8640	40700	-	-	80.5U	-	80.5U	-	-	80.5U
Methane	ug/L	N	NS	-	-	-	-	-	540	6800	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	250U	250U	250UJ	250U	250UJ	250U	250U	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	2400J	14100	135000J	22300	3800J	32100	31300	-	24500	-	20500	-	-
Sulfide	ug/L	N	NS	700U	700U	700U	700U	700U	700U	700U	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-500	MW-500	MW-500	MW-500	MW-501	MW-501	MW-501	MW-501	MW-501	MW-504	MW-504	MW-504	MW-504
			Sample Date	11/16/2017	01/30/2018	01/30/2018	01/30/2018	11/16/2017	11/17/2017	11/17/2017	01/30/2018	01/30/2018	01/09/2017	10/18/2017	10/18/2017	01/09/2018
			Field Sample ID	M500A1X	M500A2	M500A2X	M500A2X	M501A1	D1117178	M501A1X	M501A2	M501A2X	M504A9	M504A8	M504A8X	M504A9X
			SDG	CQ893	CQ956	CQ955	CQ956	CQ893	CQ895	CQ895	CQ956	CQ955	CQ935	CQ825	CQ825	CQ935
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.27	5.19	5.19	5.19	-	3.13	3.13	0.15	0.15	-	0.39	0.39	1.13
DO	mg/L	N	NS	6.33	7.43	7.43	7.43	-	4.2	4.2	5.31	5.31	-	5.03	5.03	4.12
ORP	millivolts	N	NS	-176.6	89.2	89.2	89.2	-	47.1	47.1	-104.9	-104.9	-	-115.1	-115.1	-18.1
pH	pH Units	N	NS	11.15	10.64	10.64	10.64	-	7.85	7.85	7.05	7.05	-	6.76	6.76	6.31
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	2.8	-	-	2.5	-	-	2J	-	4.5	8.5	-	-
Arsenic	ug/L	Y	3	-	2.1	-	-	2	-	-	1.8J	-	3.8	8	-	-
Benzene	ug/L	N	1	2	-	0.5U	-	-	0.5U	0.5U	-	0.5U	-	-	2J	0.8J
Iron	ug/L	N	300	-	1480	-	-	677	-	-	469	-	11600	9550	-	-
Iron	ug/L	Y	300	-	80.5U	-	-	80.5U	-	-	391	-	7410	8110	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	41400	-	-	36600	-	33400J	53000J	24400	-	-	-	2600J	132000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-506	MW-506	MW-508	MW-508	MW-512	MW-512	MW-512	MW-512	MW-6	MW-6	MW-6	MW-6
			Sample Date	01/24/2018	01/25/2018	01/24/2018	01/24/2018	03/13/2017	03/16/2017	05/04/2017	05/05/2017	10/18/1995	12/18/1995	02/22/1996	04/17/1996
			Field Sample ID	M506A4	M506A4X	M508A4	M508A4X	M512A1X	M512A1	M512A2	M512A2X	MW-0006A-1	MW-0006-A2	MW-0006-AY	MW-0006-AX
			SDG	CQ950	CQ951	CQ950	CQ950	CQ555	CQ557	CQ624	CQ625	54377	55315	60667	61449
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	27.58	4.49	4.49	2.18	-	-	1.1	-	-	-	-
DO	mg/L	N	NS	-	7.58	7.88	7.88	6.51	-	-	1.1	-	-	-	-
ORP	millivolts	N	NS	-	-42.2	30.3	30.3	59.3	-	-	216.8	-	-	-	-
pH	pH Units	N	NS	-	6.64	6.90	6.90	6.78	-	-	7.69	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	318000	-	98100	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	318000	-	98100	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	21	-	13.6	-	-	6.6	14.6	-	10.00U	10U	10U	10U
Arsenic	ug/L	Y	3	17.6	-	11.4	-	-	5.7	13.3	-	-	-	-	-
Benzene	ug/L	N	1	-	-	-	-	12	-	-	10	15.00	200	92	150
Iron	ug/L	N	300	24100	-	2490	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	4800	926	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	2420	74.7U	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	250U	-	620	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	118000	-	90900	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	700U	-	3000	4700J	-	-	11400	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6
			Sample Date	10/09/2002	10/09/2002	01/27/2003	01/28/2003	10/27/2003	10/28/2003	08/16/2004	03/23/2005	08/16/2005	03/23/2006	09/08/2006	03/21/2007	03/13/2008
			Field Sample ID	M006A1X	M006A1Y	M006A2X	M006A2Y	M006A4	M006A4A	M006A5	M006A6	M006A7	M006A8	M006A9	M006B1	M006B2
			SDG	RFE28	RFE28	RFE61	RFE61	RFE91	RFE92	RFF19	RFF44	955618	982888	1004877	1030299	1081558
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	7.4
DO	mg/L	N	NS	3.93	3.93	9.35	-	-	-	-	-	-	-	-	-	0
ORP	millivolts	N	NS	272	272	286	-	-	-	-	-	-	-	-	-	221
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	3.55
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	410U	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	410U	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	410U	-	410U	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	-	4.9U	-	4.9U	-	-	-	-	-	-	-	10.0U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	47	-	23	-	9	11	15	2J	10	14	5J	-
Iron	ug/L	N	300	107	-	797	-	2990	-	-	-	-	-	-	-	270
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	880	-	680	-	570	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	26000	-	3000U	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6
			Sample Date	03/13/2008	02/26/2009	02/27/2009	03/02/2010	03/02/2010	03/29/2011	03/29/2011	05/01/2012	05/02/2012	07/09/2013	07/10/2013	09/29/2014	09/30/2014
			Field Sample ID	M006B2X	M006B3	M006B3X	M006B4	M006B4X	M006B5	M006B5X	M006B6	M006B6X	M006B7	M006B7X	M006B8	M006B8X
			SDG	1081558	1134114	1134114	RFS32	RFS32	RFT03	RFT03	RFU51	RFU51	RFB33	RFB33	CS163	CS163
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.4	8.18	-	7.35	7.35	4.27	4.27	3.33	7	1.4	5.03	0.63	5.46
DO	mg/L	N	NS	0	2	-	3.03	3.03	9.92	9.92	17.79	4.58	15.07	7.63	17.02	8.83
ORP	millivolts	N	NS	221	415	-	283	283	334	334	333	307	-47	-19	224	266
pH	pH Units	N	NS	3.55	4.46	-	4.47	4.47	4.51	4.51	4.17	4.46	4.60	4.66	6.28	4.36
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	3100	-	700U
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	3100	-	700U
Arsenic	ug/L	N	3	-	10.0U	-	8.6J	-	9.8U	-	5.1U	-	1.3J	-	1.0J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	0.42U	-	0.82U	-
Benzene	ug/L	N	1	0.8J	-	6	-	0.8J	-	3J	-	7	-	6	-	14
Iron	ug/L	N	300	-	616	-	1270	-	198J	-	327	-	320	-	293	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	43.0U	-	45.3J	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	140	-	180
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	33100	-	31400
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	600U	-	600U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-6	MW-6	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7
			Sample Date	02/19/2018	02/20/2018	10/18/1995	12/18/1995	02/22/1996	04/17/1996	10/09/2002	10/09/2002	01/27/2003	10/21/2003	09/08/2004	03/23/2005
			Field Sample ID	M006C2	M006C2X	MW-0007A-1	MW-0007-A2	MW-0007-AY	MW-0007-AX	M007A1X	M007A1Y	M007A2	M007A3	M007A4	M007A5
			SDG	CS649	CS649	54377	55315	60667	61449	RFE28	RFE28	RFE61	RFE90	RFF23	RFF44
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	2.61	2.61	0.85	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-22	-22	-21	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	410U	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	410U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	148000	410U	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	1700U	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	1700U	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	0.96J	-	704.00	448	119	22.4	408	-	115	82.5	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	16	1.00U	5U	1U	1U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	102J	-	-	-	-	-	22200	-	25600	15100	-	-
Iron	ug/L	Y	300	80.5U	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	71J	-	-	-	-	-	650	40U	64J	40U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	32900	-	-	-	-	-	21800	1500U	-	-	-
Sulfide	ug/L	N	NS	-	700U	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7
			Sample Date	08/16/2005	03/23/2006	09/12/2006	03/21/2007	04/01/2008	04/02/2008	03/24/2009	03/24/2009	03/25/2009	03/25/2009	03/02/2010	03/03/2010	03/30/2011
			Field Sample ID	M007A6	M007A7	M007A8	M007A9	M007B1	M007B1X	D0324091	M007B2	D0325091	M007B2X	M007B3	M007B3X	M007B4
			SDG	955618	982888	1005262	1030299	1084471	1084471	1137663	1137663	1137663	1137663	RFS32	RFS32	RFT04
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	6.88	-	7.77	7.77	-	-	5	-	0.95
DO	mg/L	N	NS	-	-	-	-	0.28	-	0	0	-	-	0.31	-	5.86
ORP	millivolts	N	NS	-	-	-	-	-216	-	-55	-55	-	-	217	-	55
pH	pH Units	N	NS	-	-	-	-	7.55	-	6.74	6.74	-	-	6.00	-	7.10
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	39.0	-	82.3	84.0	-	-	71.4	-	67.6
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	40U	520	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7
			Sample Date	03/31/2011	05/01/2012	05/02/2012	07/09/2013	07/10/2013	09/24/2013	06/18/2014	06/19/2014	03/06/2015	07/02/2015	08/25/2015	10/01/2015	10/02/2015
			Field Sample ID	M007B4X	M007B5	M007B5X	M007B6	M007B6X	M007B7	M007B9	M007B9X	M007C1	M007C2	M007C3	M007C4	M007C4X
			SDG	RFT04	RFU51	RFU51	RFB33	RFB33	CP114	CS114	CS114	CP661	CP767	CP825	CS294	CS294
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1	1.83	1.64	0.92	0.16	-	0.44	0.4	0.63	-	-	-	1.23
DO	mg/L	N	NS	5.92	7.08	7.12	6.56	6.59	-	6.15	6.27	7.77	-	-	-	7.83
ORP	millivolts	N	NS	84	139	140	-97	-185	-	254	47	63.6	-	-	-	-67
pH	pH Units	N	NS	6.37	6.34	6.22	6.65	6.33	-	6.19	6.32	6.72	-	-	-	7.18
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	104000	-	-	99200	168000	113000	191000	-	154000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	700U	-	-	700U	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	104000	-	-	99200	168000	113000	191000	-	154000
Arsenic	ug/L	N	3	-	75.9	-	261	-	102J-	147	-	236	245	337	202	-
Arsenic	ug/L	Y	3	-	-	-	206	-	46.4J-	138	-	175	207	209	125	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-	-	-	-	0.5U
Iron	ug/L	N	300	-	-	-	7100	-	-	433	-	903	576	2440	2470	-
Iron	ug/L	Y	300	-	-	-	5620	-	-	33.4U	-	398	217	679	841	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	40U	-	-	1800	-	1300	250U	-	1000
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	54500	-	-	64600	28600	60500	52600	-	57100
Sulfide	ug/L	N	NS	-	-	-	-	600U	54U	-	600U	680U	680U	680U	-	680U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-7	MW-7	MW-7	MW-7	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8
			Sample Date	10/27/2015	11/01/2017	02/19/2018	02/20/2018	10/09/2002	10/10/2002	01/28/2003	01/29/2003	10/20/2003	10/21/2003	09/08/2004	04/07/2005	08/16/2005
			Field Sample ID	M007C5	M007D2	M007D3	M007D3X	M008A1X	M008A1Y	M008A2X	M008A2Y	M008A4	M008A4A	M008A5	M008A6	M008A7
			SDG	CP909	CQ860	CS649	CS649	RFE28	RFE28	RFE61	RFE61	RFE90	RFE90	RFF23	RFF47	955618
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	1.21	-	2.63	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-57	-	141	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	410U	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	410U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	163000	154000	-	72400	-	134000	-	410U	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	1700U	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	163000	154000	-	72400	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	263	275J	232	-	14.9	-	4.9U	-	5.0J	-	-	-	-
Arsenic	ug/L	Y	3	207	266J	228	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	513	188J	80.5U	-	4120	-	1170	-	9950	-	-	-	-
Iron	ug/L	Y	300	229	89.4J	80.5U	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	320J-	1800	-	810	-	40U	-	40U	-	40U	820	80U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	59500	50000	-	133000	-	9000J	-	6000U	-	-	-	-	-
Sulfide	ug/L	N	NS	680U	700U	-	700U	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8
			Sample Date	09/19/2006	04/03/2007	04/07/2008	04/08/2008	09/15/2008	09/15/2008	09/16/2008	09/16/2008	03/18/2009	09/25/2009	03/02/2010	08/17/2010	03/31/2011
			Field Sample ID	M008A8	M008A9	M008B1	M008B1X	D0915081	M008B2	D0916082	M008B2X	M008B3X	M008B4X	M008B5X	M008B6X	D0331111
			SDG	1006278	1032144	1085453	1085453	1110464	1110464	1110464	1110464	1136756	1163612	RFS32	RFS64	RFT04
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	4.25	-	4.05	4.05	-	-	-	-	-	-	7.22
DO	mg/L	N	NS	-	-	0	-	0	0	-	-	-	-	-	-	0
ORP	millivolts	N	NS	-	-	-161	-	-108	-108	-	-	-	-	-	-	0
pH	pH Units	N	NS	-	-	6.55	-	6.73	6.73	-	-	-	-	-	-	0.00
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	10.0U	-	10.2U	10.2U	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9
			Sample Date	03/31/2011	05/30/2012	07/10/2013	07/10/2013	07/10/2013	11/01/2013	11/01/2013	10/09/2002	10/09/2002	01/29/2003	01/30/2003	10/21/2003	08/26/2004
			Field Sample ID	M008B7X	M008B8X	D0710131	D0710131B	M008B9X	M008C1	M008C1X	M009A1X	M009A1Y	M009A2Y	M009A2X	M009A4	M009A5
			SDG	RFT04	RFU77	RFB36	RFB33	RFB33	CP177	CP177	RFE28	RFE28	RFE61	RFE62	RFE90	RFF21
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.22	-	0.11	0.11	0.11	-	-	-	-	-	-	-	6.17
DO	mg/L	N	NS	0	-	4.31	4.31	4.31	-	-	1.13	1.13	2.82	-	-	0.97
ORP	millivolts	N	NS	0	-	-281	-281	-281	-	-	158	158	43	-	-	-47
pH	pH Units	N	NS	0.00	-	6.80	6.80	6.80	-	-	-	-	-	-	-	6.45
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	148000	-	168000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410U	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	207000	-	148000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	0.93J	-	-	4.5	-	4.9U	-	4.9U	-	4.9U	-
Arsenic	ug/L	Y	3	-	-	0.51J	-	-	4.2	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	4220	-	-	11000	-	3530	-	5460	-	20900	15200
Iron	ug/L	Y	300	-	-	2440	-	-	11100	-	-	-	-	-	-	9010
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	2100J	-	156000	-	393000	-	363000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9
			Sample Date	03/16/2005	03/17/2005	08/31/2005	09/01/2005	03/20/2006	03/21/2006	09/07/2006	09/08/2006	04/11/2007	04/11/2007	09/17/2007	09/18/2007	03/26/2008
			Field Sample ID	M009A6	M009A6X	M009A7	M009A7X	M009A8	M009A8X	M009A9	M009A9X	M009B1	M009B1X	M009B2	M009B2X	M009B3
			SDG	RFF44	RFF44	957808	957808	982474	982474	1004877	1004877	1033234	1033234	1056766	1056766	1083600
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	6.78	-	-	-	-	-	5.88	5.88	-	-	5.91
DO	mg/L	N	NS	-	-	2.49	-	-	-	-	-	0	0	-	-	1.2
ORP	millivolts	N	NS	-	-	76	-	-	-	-	-	-81	-81	-	-	88
pH	pH Units	N	NS	-	-	6.26	-	-	-	-	-	6.37	6.37	-	-	6.92
Alkalinity to pH 4.5	ug/L	N	NS	-	78200	-	160000	-	73500	-	114000	-	165000	-	95800	-
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	410U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	10.0U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	20000	-	8930	-	10800J	-	12300J	-	15000	-	22900	-	22000
Iron	ug/L	Y	300	6860	-	2390	-	8970J	-	10100J	-	11300	-	21600	-	323
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	413000	-	5900J	-	443000	-	372000	-	229000	-	456000	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9
			Sample Date	03/27/2008	09/10/2008	09/11/2008	04/01/2009	04/02/2009	10/06/2009	10/07/2009	03/31/2010	03/31/2010	08/16/2010	08/17/2010	02/07/2011	02/08/2011
			Field Sample ID	M009B3X	M009B4	M009B4X	M009B5	M009B5X	M009B6	M009B6X	M009B7	M009B7X	M009B8	M009B8X	M009B9	M009B9X
			SDG	1083600	1109693	1109693	1138848	1138848	1165407	1165407	RFS36	RFS36	RFS64	RFS64	RFS84	RFS84
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	6.28	-	6.44	-	5.27	5.27	6.68	6.69	1.16	1.36
DO	mg/L	N	NS	-	-	-	1.44	-	0	-	4.43	4.43	2.05	9.6	8.72	4.74
ORP	millivolts	N	NS	-	-	-	-184	-	11	-	-47	-47	-105	-86	-44	-214
pH	pH Units	N	NS	-	-	-	6.52	-	5.79	-	6.58	6.58	8.22	6.51	6.85	6.85
Alkalinity to pH 4.5	ug/L	N	NS	101000	-	128000	-	59800	-	90700	-	132000	-	123000	-	80600
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.2U	-	10.0U	-	7.2U	-	22.3	-	9.8U	-	12.3J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	8	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	6030	-	13700	-	9860	-	39000	-	12900	-	19000	-
Iron	ug/L	Y	300	-	1450	-	7620	-	4890	-	195J	-	10200	-	1870	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	49J	-	40U	-	40U	-	40U	-	59J
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	380000	-	380000	-	367000	-	434000	-	248000	-	356000	-	125000U
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-	1100U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-9	MW-9	MW-9	MW-9	P14TP1	P14TP1	P14TP1	P14TP1	P14TP1	P14TP1	P14TP1	P14TP1R
			Sample Date	06/19/2013	06/20/2013	06/19/2014	06/20/2014	04/04/2008	05/18/2009	09/17/2009	03/17/2010	08/17/2010	04/28/2011	05/10/2012	06/17/2016
			Field Sample ID	M009C1	M009C1X	M009C2	M009C2X	P14TP1A1X	P14TP1A2X	P14TP1A3X	P14TP1A4X	P14TP1A5X	P14TP1A6X	P14TP1A7X	P14TP1RB1
			SDG	RFB13	RFB13	CS115	CS115	1084984	1145283	1162355	RFS33	RFS64	RFT14	RFU56	CS419
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.16	-0.17	2.05	-0.08	-	-	-	-	8.3	-	-	12.07
DO	mg/L	N	NS	7.85	5.47	7.11	5.64	-	-	-	-	0	-	8.16	4.55
ORP	millivolts	N	NS	-82	-229	131	0	-	-	-	-	0	-	-	-183
pH	pH Units	N	NS	6.86	7.24	7.08	6.94	-	-	-	-	0.00	-	-	6.43
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	118000	-	170000	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	118000	-	170000	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	1.5J	-	2.8	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	0.42U	-	0.82U	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	5J	2J	3J	1J	2J	0.7J	2J	16
Iron	ug/L	N	300	4920	-	5090	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	43.0U	-	74.1J	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	277000	-	197000	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	600U	-	600U	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	P14TP1R	P15TP1	P15TP1	P15TP1	P15TP1	P15TP1	P15TP1	P15TP3	P15TP3	P15TP3	P15TP4	P15TP4	P15TP4
			Sample Date	06/07/2017	12/14/2011	09/05/2012	06/13/2014	12/19/2014	06/18/2015	12/08/2017	12/14/2011	06/13/2014	06/18/2015	12/14/2011	09/06/2012	06/13/2014
			Field Sample ID	P14TP1RB2	P15TP1A1	P15TP1A2	P15TP1A3	P15TP1A4X	P15TP1A5	P15TP1A9	P15TP3A1	P15TP3A2	P15TP3A3	P15TP4A1	P15TP4A2	P15TP4A3
			SDG	CS568	RFT96	RFV34	CS112	CS193	CS253	CS626	RFT96	CS112	CS253	RFT96	RFV37	CS112
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	11.26	-	7.58	-	-	-	-	-	2.94	-	-	7.82	23.64
DO	mg/L	N	NS	1.82	-	8.01	6.61	8.59	7.58	7.18	7.59	7.71	7.68	-	7.59	6.88
ORP	millivolts	N	NS	-26	-	13	-174	-	205	61	-	-185	-115	-	-101	-196
pH	pH Units	N	NS	7.06	-	6.64	7.18	-	6.45	6.43	-	6.47	6.18	-	6.21	6.57
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	4	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	4J	3	3	7	6	7
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	P15TP4	P15TP4	P15TP4	P15TP5	P15TP5	P15TP5	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61
			Sample Date	12/19/2014	06/18/2015	12/08/2017	12/14/2011	06/13/2014	06/18/2015	10/29/2002	07/24/2003	11/06/2003	08/25/2004	11/29/2004	11/29/2004	03/03/2005
			Field Sample ID	P15TP4A4X	P15TP4A4	P15TP4A9	P15TP5A1	P15TP5A2	P15TP5A3	RW61A1	R061A2	RO61A3	R061A4	R061A5	R061A5X	R061A6
			SDG	CS193	CS253	CS626	RFT96	CS112	CS253	LNA05	RFE83	RFE91	RFF21	RFF34	RFF34	RFF41
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	6.74	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	7.47	7.37	7.55	-	7.78	8.52	0	0	-	-	-	-	-
ORP	millivolts	N	NS	-	-107	-16	-	-245	-99	0	-106	-	-	-	-	-
pH	pH Units	N	NS	-	6.28	7.43	-	6.65	6.36	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	151000	-	362000	-	388000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	410U	-	410U	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	151000	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	30.4	96.2	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	5	5	5	9	8	5	2000	2000	2400	6200	-	5900	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	8760	30400	22100	32500	-	17400
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	21200	33200	-	17200
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	2700	40U	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	23900J	-	1500U	-	6000U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	530U	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61
			Sample Date	03/03/2005	08/17/2005	08/18/2005	11/16/2005	11/17/2005	01/12/2006	07/11/2006	10/24/2006	12/18/2006	02/20/2007	04/10/2007	04/11/2007	07/12/2007
			Field Sample ID	R061A6X	R061A7	R061A7X	R061A8	R061A8X	R061A9	R061B1	R061B2	R061B3	R061B4	R061B5	R061B5X	R061B6
			SDG	RFF41	956018	956018	967951	967951	974193	996874	1011503	1018856	1026191	1033234	1033234	1046717
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	4.73	-	4.62	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	3.08	-	0	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-129	-	-154	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	6.27	-	6.59	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	280000	-	409000	-	339000	-	-	-	-	-	-	248000	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	410U	-	460U	-	-	-	-	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	21000	-	4700	-	4300	7300	2100	120	140	4400	-	2200	1300
Iron	ug/L	N	300	-	20000	-	24000	-	-	-	-	-	-	15900	-	-
Iron	ug/L	Y	300	-	19300	-	23900	-	-	-	-	-	-	13400	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	-	-	-	-	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	3000U	-	1500U	-	6000U	-	-	-	-	-	-	11000	-
Sulfide	ug/L	N	NS	530U	-	4200U	-	530U	-	-	-	-	-	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61
			Sample Date	10/10/2007	01/22/2008	08/27/2008	08/28/2008	10/16/2008	01/14/2009	05/08/2009	08/26/2009	11/30/2009	02/09/2010	05/19/2010	10/25/2010	10/26/2010
			Field Sample ID	R061B7	R061B8	R061B9	R061B9X	R061C1	R061C2	R061C3	R061C4	R061C5	R061C7	R061C8-100519	R061C9	R061C9X
			SDG	1060372	1074539	1107601	1107601	1115428	1128343	1144083	1159433	1173202	1182011	GWC89	RFS75	RFS75
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	4.39	-	-	-	-	-	-	-	-	4.56	5.01
DO	mg/L	N	NS	-	-	0	-	-	-	-	-	-	-	-	4.41	0
ORP	millivolts	N	NS	-	-	-130	-	-	-	-	-	-	-	-	-45	-63
pH	pH Units	N	NS	-	-	6.71	-	-	-	-	-	-	-	-	6.39	6.20
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	355000	-	-	-	-	-	-	-	-	255000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	460U	-	-	-	-	-	-	-	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	52	210	-	320	210	140	230	190	1000	490	3000	-	560
Iron	ug/L	N	300	-	-	39700	-	-	-	-	-	-	-	-	4520	-
Iron	ug/L	Y	300	-	-	38500	-	-	-	-	-	-	-	-	152J	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	-	-	-	-	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	396000	-	-	-	-	-	-	-	-	68800
Sulfide	ug/L	N	NS	-	-	-	530U	-	-	-	-	-	-	-	-	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-61	RW-81	RW-81	RW-81	RW-81	RW-81
			Sample Date	09/28/2011	09/28/2011	09/29/2011	09/29/2011	05/07/2012	05/08/2012	04/29/2013	04/30/2013	11/03/2004	11/04/2004	03/31/2005	04/01/2005	09/12/2005
			Field Sample ID	D0928111	R061D1	D0929111	R061D1X	R061D2	R061D2X	R061D3	R061D3X	R081A1	R081A1X	R081A2	R081A2X	R081A3
			SDG	RFT74	RFT74	RFT74	RFT74	RFU54	RFU54	RFZ22	RFZ22	RFF33	RFF33	RFF46	RFF46	959069
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.97	2.97	-	-	2.55	0.2	-	-	-	-	-	-	9.97
DO	mg/L	N	NS	9.66	9.66	3.81	3.81	6.73	2.95	-	-	-	-	-	-	0
ORP	millivolts	N	NS	-15	-15	-	-	11	-37	-	-	-	-	-	-	-86
pH	pH Units	N	NS	7.12	7.12	-	-	7.06	6.23	-	-	-	-	-	-	6.22
Alkalinity to pH 4.5	ug/L	N	NS	-	-	226000	224000	-	119000	-	-	-	293000	-	184000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	460U	460U	-	700U	-	-	-	410U	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	700U	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	228000	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	-	1100	1100	-	270	-	210	-	-	-	1J	-
Iron	ug/L	N	300	1600	1160	-	-	2430	-	2430	-	-	-	-	-	-
Iron	ug/L	Y	300	334	239	-	-	48.0J	-	912	-	8080	-	4930	-	5540
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	6550	-	4480	-	4180
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	40U	-	1200	-	40U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	40U	-	40U	-
Sulfate (SO4)	ug/L	N	250000	-	-	12600	13900	-	7100	-	61300	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	530U	530U	-	600U	-	600U	-	1800J	-	17000	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81
			Sample Date	09/13/2005	03/29/2006	03/30/2006	09/27/2006	09/28/2006	04/17/2007	04/18/2007	04/01/2008	04/02/2008	04/07/2009	04/08/2009	03/18/2010	03/19/2010
			Field Sample ID	R081A3X	R081A4	R081A4X	R081A5	R081A5X	R081A6	R081A6X	R081A7	R081A7X	R081A8	R081A8X	R081A9	R081A9X
			SDG	959069	983761	983761	1007678	1007678	1034314	1034314	1084471	1084471	1139653	1139653	RFS34	RFS34
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	8.21	-	8.78	-	8.1	8.33
DO	mg/L	N	NS	-	-	-	-	-	-	-	0.28	-	0	-	1.71	0
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-187	-	-154	-	-64	0
pH	pH Units	N	NS	-	-	-	-	-	-	-	7.48	-	6.24	-	6.38	0
Alkalinity to pH 4.5	ug/L	N	NS	165000	-	97800	-	183000	-	261000	-	160000	-	399000	-	367000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	10.0U	-	10.0U	-	96.7	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.6J	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	1750	-	3270J	-	5550	-	3550	-	8270	-	10900	-
Methane	ug/L	N	NS	-	1520	-	2880J	-	4480	-	3440	-	7430	-	10700	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	40U	-	40U	-	40U	-	400U	-	40U	-	40U	-	40U
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	3000U	-	1500U	-	1500U	-	35600	-	7100	-	70000	-	30600
Sulfide	ug/L	Y	NS	530U	-	530U	-	530U	-	530U	-	530U	-	880J	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81	RW-81
			Sample Date	05/11/2011	05/12/2011	07/10/2013	07/11/2013	09/24/2014	09/25/2014	06/20/2016	06/21/2016	09/19/2016	09/19/2016	12/19/2016	12/19/2016	06/07/2017
			Field Sample ID	R081B1	R081B1X	R081B2	R081B2X	R081B3	R081B3X	R081B5	R081B5X	R081B6	R081B6X	R081B7	R081B7X	R081B8
			SDG	RFT21	RFT21	RFB36	RFB36	CS161	CS161	CS420	CS420	CQ315	CQ315	CQ493	CQ493	CS569
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.87	9.05	10.96	7.92	11.98	8.24	-	8.51	10.89	10.89	-	-	-
DO	mg/L	N	NS	-	-	0.98	-	0.07	-	-	-	0.45	0.45	-	-	-
ORP	millivolts	N	NS	-	-	-161	-	173	-	-	-	-51.7	-51.7	-	-	-
pH	pH Units	N	NS	-	-	7.07	-	7.03	-	-	-	6.39	6.39	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	426000	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	136000	-	150000	-	290000	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	700U	-	700U	-	1700U	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	136000	-	150000	-	290000	-	-	-	-	-
Arsenic	ug/L	N	3	23.5	-	23.6	-	14.9	-	6.3	-	2.9	-	2.2	-	11.8
Arsenic	ug/L	Y	3	-	-	22.8	-	13.4	-	5.2	-	2.1	-	1.8J	-	8.8
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	3UJ	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	11100	-	4310	-	3270	-	5970	-	10400	-	6920	-	1250
Methane	ug/L	N	NS	30100	-	3500	-	2630	-	5540	-	10300	-	7030	-	681
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	40U	-	40U	-	40U	-	40U	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	2500U	-	2500U	-	2500U	-	2500U	-	3400J	-	2600J	-
Sulfide	ug/L	Y	NS	-	530U	-	600U	-	600U	-	700U	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-81	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82
			Sample Date	06/08/2017	11/03/2004	11/04/2004	03/31/2005	04/01/2005	09/13/2005	09/13/2005	03/29/2006	03/30/2006	09/27/2006	09/28/2006	04/17/2007	04/18/2007
			Field Sample ID	R081B8X	R082A1	R082A1X	R082A2	R082A2X	R082A3	R082A3X	R082A4	R082A4X	R082A5	R082A5X	R082A6	R082A6X
			SDG	CS569	RFF33	RFF33	RFF46	RFF46	959069	959069	983761	983761	1007678	1007678	1034314	1034314
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.66	-	-	-	-	9	9	-	-	-	-	-	-
DO	mg/L	N	NS	3.69	-	-	-	-	0	0	-	-	-	-	-	-
ORP	millivolts	N	NS	39	-	-	-	-	-151	-151	-	-	-	-	-	-
pH	pH Units	N	NS	7.18	-	-	-	-	6.11	6.11	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	358000	-	348000	-	386000	-	314000	-	338000	-	304000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	410U	-	410U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	84300	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	1700U	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	84300	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	10900	-	10500	-	11800	-	7530	-	8070J	-	7470	-
Methane	ug/L	N	NS	-	10100	-	10500	-	12800	-	7390	-	8140J	-	6130	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	400U
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	8100	-	4000J	-	1500U	-	7500U	-	1500U	-	1500U	-	8600
Sulfide	ug/L	Y	NS	700U	-	530U	-	530U	-	12800J	-	530U	-	540J	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82	RW-82
			Sample Date	04/01/2008	04/02/2008	04/07/2009	04/08/2009	04/01/2010	04/01/2010	05/11/2011	05/12/2011	06/14/2012	05/31/2013	09/25/2014	06/03/2016	09/21/2016
			Field Sample ID	R082A7	R082A7X	R082A8	R082A8X	R082A9	R082A9X	R082B1	R082B1X	R082B2X	R082B3X	R082B4X	R082B5	R082B6
			SDG	1084471	1084471	1139653	1139653	RFS36	RFS36	RFT21	RFT21	RFU83	RFZ73	CS161	CS410	CQ307
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.84	-	7.85	-	7.13	7.13	7.9	8.09	7.88	7.86	8.24	7.22	11.87
DO	mg/L	N	NS	0	-	0	-	0	0	0.98	-	-	-	-	-	0.96
ORP	millivolts	N	NS	-175	-	-66	-	0	0	-87	-	-	-	-	-	-58.2
pH	pH Units	N	NS	7.39	-	6.28	-	0	0	7.02	-	-	-	-	-	6.86
Alkalinity to pH 4.5	ug/L	N	NS	-	331000	-	316000	-	235000	-	290000	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	20.5
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	19.2
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	8850	-	7350	-	6390	-	7580	-	-	-	-	-	2000
Methane	ug/L	N	NS	8500	-	5840	-	5020	-	7380	-	-	-	-	-	1250
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	40U	-	40U	-	40U	-	40U	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	2500U	-	2500U	-	10000U	-	2500U	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	530U	-	530U	-	11300J	-	530U	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-82	RW-82	RW-82	RW-82	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83
			Sample Date	09/21/2016	12/19/2016	12/20/2016	06/08/2017	11/05/2003	11/06/2003	11/06/2003	08/30/2004	04/05/2005	08/31/2005	09/01/2005	04/03/2006	04/04/2006
			Field Sample ID	R082B6X	R082B7	R082B7X	R082B8	R083A2	R083A2A	RO83A2	R083A3	R083A2X	R083A4	R083A4X	R083A5	R083A5X
			SDG	CQ307	CQ493	CQ494	CS569	RFF47	RFE92	RFE91	RFF22	RFF47	957808	957808	984270	984270
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	11.87	-	-	6.65	-	-	-	8.2	-	9.45	-	-	-
DO	mg/L	N	NS	0.96	-	-	3.41	-	-	-	1.75	-	2.42	-	-	-
ORP	millivolts	N	NS	-58.2	-	-	49	-	-	-	16	-	10	-	-	-
pH	pH Units	N	NS	6.86	-	-	7.02	-	-	-	6.64	-	6.27	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	161000	72000	-	106000	-	68400
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	410U	410U	-	410U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	68400
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	44.7	-	-	-	-	7.8J	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	41.4	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3U	-	0.5U	0.5U	-	0.9J	-	0.5U	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	229	-	-	49.5U	-	3210	8960	-	410	-	266	-
Methane	ug/L	N	NS	-	74.7U	-	-	49.5U	-	-	177J	-	37.8U	-	111J	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	560	-	40U	250	-	890	-	1700
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	9000	-	120000	-	-	-	-	5400	5700J	-	21700J	-	28300
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	530U	530U	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83
			Sample Date	09/28/2006	09/28/2006	04/12/2007	04/13/2007	04/01/2008	04/02/2008	04/07/2009	04/08/2009	03/18/2010	03/18/2010	04/06/2011	04/07/2011	06/13/2012
			Field Sample ID	R083A6	R083A6X	R083A7	R083A7X	R083A8	R083A8X	R083A9	R083A9X	R083B1	R083B1X	R083B2	R083B2X	R083B3
			SDG	1007678	1007678	1033684	1033684	1084471	1084471	1139653	1139653	RFS34	RFS34	RFT05	RFT05	RFU83
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	7.74	-	6.96	-	8.59	8.59	5.76	7.07	2.76
DO	mg/L	N	NS	-	-	-	-	0.27	-	0.44	-	5.3	5.3	5.5	5.71	-
ORP	millivolts	N	NS	-	-	-	-	23	-	-72	-	-15	-15	50	99	-
pH	pH Units	N	NS	-	-	-	-	6.3	-	6.5	-	7.09	7.09	7.24	7.02	-
Alkalinity to pH 4.5	ug/L	N	NS	-	125000	-	123000	-	79000	-	120000	-	87800	-	135000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	10.0U	-	10.0U	-	8.7J	-	12.1J	-	6.5J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	25U	-	0.5U	-	10	-	8	-	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	1340J	-	9010	-	1840	-	5440	-	10700	-	5100	-	-
Methane	ug/L	N	NS	76.8J	-	52.2U	-	52.2U	-	105J	-	129J	-	799	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	810	-	760	-	920	-	40U	-	2000U	-	540	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	21200J	-	14400J	-	13300	-	13800	-	2500U	-	9900J	-
Sulfide	ug/L	Y	NS	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83	RW-83
			Sample Date	06/14/2012	05/28/2013	05/29/2013	09/24/2014	09/25/2014	06/02/2016	06/03/2016	09/20/2016	09/20/2016	12/16/2016	12/20/2016	06/07/2017	06/08/2017
			Field Sample ID	R083B3X	R083B4	R083B4X	R083B5	R083B5X	R083B6	R083B6X	R083B7	R083B7X	R083B8	R083B8X	R083B9	R083B9X
			SDG	RFU83	RFZ68	RFZ68	CS161	CS161	CS410	CS410	CQ304	CQ304	CQ492	CQ494	CS569	CS569
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.31	7.92	4.45	9.31	-	-	8.72	10.24	10.24	-	7.8	-	4.34
DO	mg/L	N	NS	3.55	0.95	4.94	1.21	-	-	5.32	3.94	3.94	-	10.53	-	5.64
ORP	millivolts	N	NS	-28	-102	-92	46	-	-	992	110.2	110.2	-	-0.7	-	120
pH	pH Units	N	NS	7.37	6.77	7.01	6.68	-	-	7.12	7.03	7.03	-	7.51	-	7.4
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	166000	-	163000	-	122000	-	-	-	-	-	133000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	700U	-	1700U	-	-	-	-	-	1700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	166000	-	163000	-	122000	-	-	-	-	-	133000
Arsenic	ug/L	N	3	-	7.7	-	15.7	-	6.0	-	5.3	-	1.9J	-	7.0	-
Arsenic	ug/L	Y	3	-	4.9	-	12.8	-	5.1	-	2.7	-	1.7J	-	4.3	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	2250	-	4100	-	1100	-	995	-	265	-	1460	-
Methane	ug/L	N	NS	-	146J	-	1030	-	320	-	74.7U	-	74.7U	-	74.7U	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	670	-	40U	-	630	-	-	-	-	-	330
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	13000	-	19200	-	17100	-	18600	-	10300	-	12000
Sulfide	ug/L	Y	NS	-	-	600U	-	600U	-	700U	-	-	-	-	-	700U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91
			Sample Date	11/24/2003	11/25/2003	09/09/2004	09/10/2004	03/24/2005	03/24/2005	09/08/2005	09/08/2005	03/27/2006	03/28/2006	09/18/2006	09/19/2006	04/02/2007
			Field Sample ID	R091A1	R091A1A	R091A2	R091A2X	R091A3	R091A3X	R091A4	R091A4X	R091A5	R091A5X	R091A6	R091A6X	R091A7
			SDG	RFE93	RFE93	RFF23	RFF23	RFF46	RFF46	958509	958509	983381	983381	1006278	1006278	1032144
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	3	-	-	-	3.56	3.56	-	-	-	-	-
DO	mg/L	N	NS	-	-	0.87	-	-	-	2.61	2.61	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-135	-	-	-	-45	-45	-	-	-	-	-
pH	pH Units	N	NS	-	-	NM	-	-	-	5.83	5.83	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	152000	-	118000	-	185000	-	236000	-	160	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	410U	-	410U	-	460U	-	460U	-	0.46U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	35.1	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	8790	-	16600	-	16300	-	10700	-	981J	-	2460J	-	43400
Iron	ug/L	Y	300	-	-	11000	-	49.5U	-	11300	-	530J	-	684J	-	52.2U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	180	-	230	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	5300	-	7500U	-	150000U	-	5700	-	12600	-
Sulfide	ug/L	N	NS	-	-	-	530U	-	530U	-	4200U	-	530U	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91	RW-91
			Sample Date	04/03/2007	04/07/2008	04/08/2008	03/19/2009	03/20/2009	03/18/2010	03/19/2010	05/11/2011	05/12/2011	06/18/2013	06/19/2013	11/04/2013	11/05/2013
			Field Sample ID	R091A7X	R091A8	R091A8X	R091A9	R091A9X	R091B1	R091B1X	R091B2	R091B2X	R091B3	R091B3X	R091B4	R091B4X
			SDG	1032144	1085453	1085453	1137154	1137154	RFS34	RFS34	RFT21	RFT21	RFB10	RFB10	CP180	CP184
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	3.9	-	4.4	-	-	-	1.49	2.62	0.8	0.09	7.3	7.3
DO	mg/L	N	NS	-	0.72	-	0.8	-	-	-	9.22	3.62	7.46	3.36	dry	6.37
ORP	millivolts	N	NS	-	93	-	116	-	-	-	-46	60	-122	-244	-45.4	-63
pH	pH Units	N	NS	-	6.42	-	6.72	-	-	-	6.78	6.75	6.73	6.73	7.14	7.65
Alkalinity to pH 4.5	ug/L	N	NS	59300	-	92200	-	30000	-	385000	-	388000	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	395000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	700U	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	395000	-	-
Arsenic	ug/L	N	3	-	10.0U	-	10.0U	-	16.8J	-	9.9J	-	7.7	-	10.3	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	7.0	-	4.7	-
Benzene	ug/L	N	1	0.5U	-	1J	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	52.2U	-	1300	-	36300	-	30800	-	17200	-	4220	-
Iron	ug/L	Y	300	-	6420	-	52.2U	-	32200	-	10800	-	-	-	307	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	770	-	79J	-	1800	-	40U	-	40U	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	34500	-	17700	-	25000U	-	5000U	-	5200	-	-	-	39100
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92
			Sample Date	04/01/2005	04/01/2005	09/12/2005	09/13/2005	03/28/2006	03/28/2006	09/27/2006	09/28/2006	04/02/2007	04/03/2007	04/07/2008	04/08/2008	03/19/2009
			Field Sample ID	R092A1	R092A1X	R092A2	R092A2X	R092A3	R092A3X	R092A4	R092A4X	R092A5	R092A5X	R092A6	R092A6X	R092A7
			SDG	RFF46	RFF46	959069	959069	983381	983381	1007678	1007678	1032144	1032144	1085453	1085453	1137154
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	8.12	-	-	-	-	-	-	-	8.35	-	8.85
DO	mg/L	N	NS	-	-	0	-	-	-	-	-	-	-	0.51	-	0
ORP	millivolts	N	NS	-	-	-177	-	-	-	-	-	-	-	-138	-	-129
pH	pH Units	N	NS	-	-	6.77	-	-	-	-	-	-	-	6.39	-	6.92
Alkalinity to pH 4.5	ug/L	N	NS	-	249000	-	424000	-	333000	-	396000	-	326000	-	275000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	3J	-	3J	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	21400	-	20100	-	16500J	-	14400J	-	27300	-	6690	-	22600
Iron	ug/L	Y	300	21400	-	18600	-	16300J	-	13700J	-	26000	-	6310	-	21900
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	2000U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	3000U	-	3000U	-	6000U	-	3000U	-	10000U	-	2500U	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92	RW-92
			Sample Date	03/20/2009	03/16/2010	03/17/2010	05/11/2011	05/12/2011	05/30/2012	10/30/2013	10/30/2013	01/10/2014	01/10/2014	01/10/2014	01/10/2014	01/13/2014
			Field Sample ID	R092A7X	R092A8	R092A8X	R092A9	R092A9X	R092B1X	R092B2	R092B2X	D0110148	D0110148	R092B3	R092B3	R092B3X
			SDG	1137154	RFS33	RFS33	RFT21	RFT21	RFU77	CP173	CP173	CP254	CP255	CP254	CP255	CP257
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	FD	FD	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	7.66	7.88	3.05	-	-	0.22	0.22	-	-	-	-	5.78
DO	mg/L	N	NS	-	0.66	0	8.23	8.2	8.28	8.46	8.46	-	-	-	-	7.98
ORP	millivolts	N	NS	-	73	0	-	-	-	-79.6	-79.6	-	-	-	-	-4.5
pH	pH Units	N	NS	-	6.41	0.00	-	-	-	6.94	6.94	-	-	-	-	6.64
Alkalinity to pH 4.5	ug/L	N	NS	357000	-	415000	-	450000	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	13.8	-	56.8	-	49.8	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	9.7	-	-	39.7	-	45.0	-
Benzene	ug/L	N	1	0.5U	-	0.5J	-	0.5U	0.5U	-	3U	-	-	-	-	0.5U
Iron	ug/L	N	300	-	17900	-	18400	-	-	2420	-	10900	-	10600	-	-
Iron	ug/L	Y	300	-	17700	-	18300	-	-	1590	-	-	9240	-	9580	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	5700J	-	2500U	-	10000U	-	-	27200	-	-	-	-	2100J
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
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Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-92	RW-92	RW-93	RW-93	RW-93	RW-93	RW-93	RW-93	RW-93	RW-93	RW-93	RW-93	RW-93
			Sample Date	09/30/2014	02/16/2018	04/01/2005	04/01/2005	09/12/2005	09/13/2005	03/28/2006	03/28/2006	09/27/2006	09/28/2006	04/02/2007	04/03/2007	04/03/2008
			Field Sample ID	R092B4X	R092B7	R093A1	R093A1X	R093A2	R093A2X	R093A3	R093A3X	R093A4	R093A4X	R093A5	R093A5X	R093A6
			SDG	CS163	CS648	RFF46	RFF46	959069	959069	983381	983381	1007678	1007678	1032144	1032144	1084984
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	7.66	-	-	-	-	-	-	-	7.56
DO	mg/L	N	NS	8.59	-	-	-	0	-	-	-	-	-	-	-	4.04
ORP	millivolts	N	NS	-	-	-	-	-143	-	-	-	-	-	-	-	22
pH	pH Units	N	NS	-	-	-	-	7.02	-	-	-	-	-	-	-	6.43
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	78700	-	252000	-	92800	-	131000	-	62500	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	410U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	10.7J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	-	453	-	6900	-	2230J	-	661J	-	8490	-	7170
Iron	ug/L	Y	300	-	-	49.5U	-	6630	-	1860J	-	52.2U	-	52.2U	-	140J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	120	-	40U	-	40U	-	40U	-	400	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	33000	-	36700	-	36100	-	74100	-	61900	-
Sulfide	ug/L	N	NS	-	-	-	530U	-	530U	-	530U	-	530U	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-93	RW-93	RW-93	RW-93	RW-93	RW-93	RW-93	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94
			Sample Date	04/04/2008	03/19/2009	03/20/2009	03/16/2010	03/17/2010	05/11/2011	05/12/2011	10/28/2003	09/09/2004	09/10/2004	03/24/2005	03/24/2005	09/08/2005
			Field Sample ID	R093A6X	R093A7	R093A7X	R093A8	R093A8X	R093A9	R093A9X	RW94A2	R094A3	R094A3X	R094A4	R094A4X	R094A5
			SDG	1084984	1137154	1137154	RFS33	RFS33	RFT21	RFT21	RFE92	RFF23	RFF23	RFF46	RFF46	958509
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	8.02	-	5.02	5.21	1.25	2.89	-	-	-	-	-	4.17
DO	mg/L	N	NS	-	0.24	-	3.23	3.97	6.84	6.81	-	0.91	-	-	-	2.72
ORP	millivolts	N	NS	-	187	-	79	103	-30	1.73	-	98	-	-	-	-55
pH	pH Units	N	NS	-	6.21	-	6.87	6.74	7.31	7.16	-	5.52	-	-	-	5.81
Alkalinity to pH 4.5	ug/L	N	NS	55100	-	36800	-	49200	-	100000	-	-	294000	-	341000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	-	410U	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	-	7.2U	-	9.8U	-	4.9U	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	835	-	9810	-	4150	-	4140	3170	-	4760	-	19100
Iron	ug/L	Y	300	-	52.2U	-	87.5J	-	1070	-	-	808	-	3200	-	18700
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	1100	-	40U	-	320	-	570	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	33200	-	106000	-	47300	-	54900	-	-	1500U	-	6000U	-
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	-	530U	-	530U	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94
			Sample Date	09/08/2005	03/29/2006	03/30/2006	09/20/2006	09/20/2006	04/03/2007	04/03/2007	04/09/2008	04/10/2008	03/24/2009	03/25/2009	02/18/2010	02/18/2010
			Field Sample ID	R094A5X	R094A6	R094A6X	R094A7	R094A7X	R094A8	R094A8X	R094A9	R094A9X	R094B1	R094B1X	R094B2	R094B2X
			SDG	958509	983761	983761	1006518	1006518	1032144	1032144	1085976	1085976	1137663	1137663	1183032	1183032
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.17	-	-	-	-	-	-	3.96	-	4.65	-	4.24	4.24
DO	mg/L	N	NS	2.72	-	-	-	-	-	-	1.95	-	0	-	0	0
ORP	millivolts	N	NS	-55	-	-	-	-	-	-	181	-	-18	-	79	79
pH	pH Units	N	NS	5.81	-	-	-	-	-	-	5.25	-	6.22	-	5.84	5.84
Alkalinity to pH 4.5	ug/L	N	NS	338000	-	183000	-	15700	-	202000	-	511000	-	367000	-	333000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	10.0U	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	8220	-	6960J	-	20100	-	1580	-	29000	-	10400	-
Iron	ug/L	Y	300	-	6080	-	7170J	-	22000	-	91.0J	-	22200	-	833	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	2000U	-	40U	-	200U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	7500U	-	3000U	-	2000J	-	20400	-	5000U	-	10000U	-	12500U
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	RW-94	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10
			Sample Date	03/30/2011	03/31/2011	05/30/2012	06/19/2013	08/16/2013	06/27/2014	02/16/2018	05/07/2004	04/14/2008	04/15/2008	10/01/2008	10/02/2008	04/16/2009
			Field Sample ID	R094B3	R094B3X	R094B4X	R094B5X	R094B6	R094B7X	R094C1X	SB10204A	SB10208	SB10208X	SB10408	SB10408X	SB10209
			SDG	RFT04	RFT04	RFU77	RFB10	CP076	CS119	CS648	GWC11	1086597	1086597	1113167	1113167	1140893
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.97	0.75	0.18	1.75	4.22	0.22	-	-	4.38	-	4	-	-
DO	mg/L	N	NS	3.4	3.35	3.62	2.67	3.95	3.77	-	-	1.51	-	0	-	-
ORP	millivolts	N	NS	-61	-70	10	-154	-81.8	-55	-	-	-335	-	-146	-	-
pH	pH Units	N	NS	6.56	6.61	6.53	6.28	6.70	6.48	-	-	6.78	-	6.99	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	492000	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	267000	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	267000	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	6.0	-	-	-	10.0U	-	10.2U	-	10.0U
Arsenic	ug/L	Y	3	-	-	-	-	2.5	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	0.5U	0.5U	1	0.5U	0.9U	-	0.5U	-	5U	-
Iron	ug/L	N	300	65800	-	-	-	25400	-	-	-	6790	-	9250	-	1910
Iron	ug/L	Y	300	66900	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	12000	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	40U	-	-	40U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	10000U	-	-	1700J	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	530U	-	-	600U	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10
			Sample Date	04/16/2009	10/13/2009	10/14/2009	04/12/2010	04/13/2010	10/20/2010	10/21/2010	04/21/2011	04/22/2011	10/05/2011	10/06/2011	04/12/2012	04/13/2012
			Field Sample ID	SB10209X	SB10409	SB10409X	SB10210	SB10210X	SB10410	SB10410X	SB10211	SB10211X	SB10411	SB10411X	SB10212	SB10212X
			SDG	1140893	1166426	1166426	RFS38	RFS38	RFS74	RFS74	RFT12	RFT12	RFT76	RFT76	RFU42	RFU42
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	4.52	-	3.87	-	4.18	17.87	1.02	0.69	3.26	4.48	2.51	0.01
DO	mg/L	N	NS	-	0	-	0.33	-	0	0	17.68	15.46	17.84	16.67	15.49	13.4
ORP	millivolts	N	NS	-	-349	-	-178	-	-349	-271	-287	-65	-92	-65	-118	-113
pH	pH Units	N	NS	-	6.42	-	6.88	-	6.71	6.51	6.84	6.83	7.95	6.75	7.18	7.07
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	7.2U	-	7.2U	-	9.8U	-	9.8U	-	8.7J	-	5.1U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	1470	-	8540	-	1830	-	2200	-	18300	-	777	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10	SB-10
			Sample Date	10/01/2012	10/02/2012	10/18/2013	11/13/2013	11/13/2013	05/14/2014	05/16/2014	10/02/2014	10/03/2014	04/30/2015	05/01/2015	10/05/2015	10/06/2015
			Field Sample ID	SB10412	SB10412X	SB10413X	D1113132	SB10413	SB10214	SB10214X	SB10414	SB10414X	SB10215	SB10215X	SB10415	SB10415X
			SDG	RFV48	RFV48	CS030	CS044	CS044	CS099	CS099	CS165	CS165	CS225	CS225	CS295	CS295
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.93	5.18	-	-	-	-	-0.42	1.26	0.64	-	-2.86	-	-0.36
DO	mg/L	N	NS	15.8	15.78	-	-	-	-	18.88	20.71	19.24	-	18.64	-	21.14
ORP	millivolts	N	NS	-302	-337	-	-	-	-	-369	-308	-371	-	-219	-	-259
pH	pH Units	N	NS	6.94	7.12	-	-	-	-	7.04	6.66	6.79	-	6.76	-	6.54
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	1.1J	-	-	2.3	2.3	1.3J	-	1.3J	-	1.4J	-	1.2J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	-	-	0.5U	-	0.5U	-	0.5UJ	-	0.5U
Iron	ug/L	N	300	683	-	-	7090	6920	3020	-	2280	-	643	-	256	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B
			Sample Date	05/07/2004	08/03/2004	10/20/2004	02/08/2005	02/08/2005	04/22/2005	07/06/2005	07/07/2005	10/18/2005	01/03/2006	01/04/2006	04/11/2006
			Field Sample ID	SB13B204A	SB13B304	SB13B404X	SB13B105	SB13B105X	SB13B205X	SB13B305	SB13B305X	SB13B405X	SB13B106	SB13B106X	SB13B206X
			SDG	GWC11	GWC14	RFF31	RFF37	RFF37	GWC19	950313	950313	963655	973162	973162	985249
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	8.38	-	-	-	7.83	-	-	8.68	-	-
DO	mg/L	N	NS	-	-	0.31	-	-	-	0.51	-	-	1.15	-	-
ORP	millivolts	N	NS	-	-	-70	-	-	-	-159	-	-	122	-	-
pH	pH Units	N	NS	-	-	6.49	-	-	-	6.55	-	-	7.28	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	4.7U	-	4.7U	-	-	9.3U	-	-	9.3U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.9U	0.9U	0.9U	-	0.9U	0.5U	-	0.9U	0.5U	-	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	40U	40U	-	40U	40U	-	40U	40U	-	40U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B
			Sample Date	07/24/2006	07/25/2006	10/04/2006	01/16/2007	01/17/2007	04/24/2007	08/08/2007	08/09/2007	10/17/2007	01/30/2008	01/31/2008	04/15/2008	07/14/2008
			Field Sample ID	SB13B306	SB13B306X	SB13B406X	SB13B107	SB13B107X	SB13B207X	SB13B307	SB13B307X	SB13B07X	SB13B108	SB13B108X	SB13B208X	SB13B308
			SDG	998726	998726	1008498	1021982	1021982	1035058	1050859	1050859	1061506	1075580	1075580	1086598	1100673
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10U	-	-	10U	-	-	10.0U	-	-	10.0U	-	-	10.2U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	40U	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B
			Sample Date	07/15/2008	10/03/2008	02/09/2009	02/10/2009	04/14/2009	08/03/2009	08/04/2009	10/21/2009	01/21/2010	01/22/2010	04/15/2010	07/12/2010
			Field Sample ID	SB13B308X	SB13B408X	SB13B109	SB13B109X	SB13B209X	SB13B309	SB13B309X	SB13B409X	SB13B110	SB13B110X	SB13B210X	SB13B310-100712
			SDG	1100673	1113378	1131631	1131631	1140444	1156238	1156238	1167395	1179741	1179741	RFS39	RFS56
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	7.37	-	-	-	-	-	7.22	-	11.61	6.78
DO	mg/L	N	NS	-	-	0	-	-	-	-	-	0	-	0.25	1.74
ORP	millivolts	N	NS	-	-	-9	-	-	-	-	-	13	-	62	-66
pH	pH Units	N	NS	-	-	6.78	-	-	-	-	-	6.51	-	6.63	8.14
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	10.0U	-	-	7.2U	-	-	7.2U	-	-	9.8U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B
			Sample Date	07/13/2010	10/29/2010	02/16/2011	02/17/2011	04/22/2011	07/11/2011	07/12/2011	10/06/2011	01/19/2012	01/20/2012	04/13/2012	07/16/2012
			Field Sample ID	SB13B310X-100713	SB13B410X	SB13B111	SB13B111X	SB13B211X	SB13B311	SB13B311X	SB13B411X	SB13B112	SB13B112X	SB13B212X	SB13B312
			SDG	RFS56	RFS76	RFS88	RFS88	RFT12	RFT41	RFT41	RFT76	RFU01	RFU01	RFU42	RFV10
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	13.73	13.96	10.62	0.77	1.03	1.42	0.81	3.66	91.33	0.98	0.53	1.08
DO	mg/L	N	NS	0	0.08	16.93	10.17	12.43	17.11	12.12	13.94	NM	14.38	14.95	17.67
ORP	millivolts	N	NS	-60	-15	58	104	-18	-84	0	57	17	53	1	-68
pH	pH Units	N	NS	6.07	6.31	7.94	6.42	6.58	6.86	6.22	6.42	7.18	6.75	6.64	7.11
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	9.8U	-	-	5.1U	-	-	5.1U	-	-	7.4J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B
			Sample Date	07/17/2012	10/04/2012	01/14/2013	01/15/2013	05/02/2013	07/15/2013	07/16/2013	10/18/2013	02/17/2014	02/18/2014	04/29/2014	07/23/2014	07/24/2014
			Field Sample ID	SB13B312X	SB13B412X	SB13B113	SB13B113X	SB13B213X	SB13B313	SB13B313X	SB13B413X	SB13114	SB13114X	SB13214X	SB13314	SB13314X
			SDG	RFV10	RFV51	RFX33	RFX33	RFZ25	RFB41	RFB41	CS030	CS063	CS063	CS092	CS130	CS130
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.18	0.46	2.54	0.81	-0.39	0.79	0.88	-	0.45	0.61	4.24	-	-
DO	mg/L	N	NS	13.88	13.92	17.14	12.41	13.11	18.26	12.17	-	17.21	12.28	13.71	-	-
ORP	millivolts	N	NS	-62	18	-91	-80	-276	-106	-147	-	-87	-121	-195	-	-
pH	pH Units	N	NS	6.48	10.83	6.78	6.58	6.68	6.76	6.46	-	6.69	6.41	6.55	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	0.40U	-	-	0.42U	-	-	0.42U	-	-	0.82U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-13B	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14
			Sample Date	10/03/2014	01/15/2015	01/16/2015	05/01/2015	07/20/2015	07/21/2015	10/06/2015	10/02/2001	01/15/2002	04/01/2002	07/11/2002	10/02/2002	01/06/2003
			Field Sample ID	SB13B414X	SB13115	SB13115X	SB13B215X	SB13B315	SB13B315X	SB13B415X	SB14401	SB14102	SB14202	SB14302	SB14402Y	SB14103X
			SDG	CS165	CS196	CS196	CS225	CS265	CS265	CS295		267959	278300	292569	GWC01	GWC02
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.67	-0.28	0.26	0.36	-	-0.38	-0.65	-	-	-	-	-	-
DO	mg/L	N	NS	13.73	18.4	13.06	17.48	-	18.57	18.46	-	-	-	-	-	-
ORP	millivolts	N	NS	-78	-126	-170	-80	-	-57	-72	-	-	-	-	-	-
pH	pH Units	N	NS	6.49	6.83	6.57	6.64	-	6.66	6.49	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	0.82U	-	-	0.91J	-	-	-	5.0U	-	5.0U	-	4.9U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	0.65U	1.00U	1.0U	1.00U	0.9U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14
			Sample Date	01/06/2003	04/22/2003	07/09/2003	10/14/2003	05/06/2004	07/28/2004	10/27/2004	02/07/2005	02/08/2005	04/20/2005	07/11/2005	07/12/2005	10/13/2005
			Field Sample ID	SB14103Y	SB14203	SB14303	SB14403A	SB14204	SB14304	SB14404X	SB14105	SB14105X	SB14205X	SB14305	SB14305X	SB14405X
			SDG	GWC02	GWC04	GWC06	GWC09	GWC11	GWC14	RFF32	RFF37	RFF37	GWC19	950875	950875	963111
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	6.88	-	-
DO	mg/L	N	NS	-	-	0.39	-	-	-	-	-	-	-	4.26	-	-
ORP	millivolts	N	NS	-	-	64	-	-	-	-	-	-	-	180	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	5.66	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	4.9U	-	-	4.7U	-	4.7U	-	-	9.3U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	-	0.9U	0.5U	-	0.9U	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	41J	-	40U	1000	3500	2400	-	2800	1300	-	1300	1600
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14
			Sample Date	01/04/2006	01/04/2006	04/11/2006	07/24/2006	07/25/2006	10/04/2006	01/08/2007	01/09/2007	04/20/2007	08/13/2007	08/14/2007	10/23/2007	01/22/2008
			Field Sample ID	SB14106	SB14106X	SB14206X	SB14306	SB14306X	SB14406X	SB14107	SB14107X	SB14207X	SB14307	SB14307X	SB14407X	SB14108
			SDG	973162	973162	985249	998726	998726	1008498	1020845	1020845	1034667	1051501	1051501	1062332	1074540
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.91	6.91	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	3.04	3.04	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	173	173	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	5.68	5.68	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	9.3U	-	-	10U	-	-	10U	-	-	10.0U	-	-	10.0U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	1300	2600	-	2300	200	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14	SB-14
			Sample Date	01/23/2008	04/15/2008	07/15/2008	07/16/2008	10/02/2008	01/14/2009	01/15/2009	04/22/2009	08/04/2009	08/05/2009	10/14/2009	01/21/2010	01/22/2010
			Field Sample ID	SB14108X	SB14208X	SB14308	SB14308X	SB14408X	SB14109	SB14109X	SB14209X	SB14309	SB14309X	SB14409X	SB14110	SB14110X
			SDG	1074540	1086598	1100938	1100938	1113167	1128342	1128342	1141708	1156453	1156453	1166426	1179741	1179741
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	7.5	-	-	7.05	-	-	6.19	-	-	6.99	-
DO	mg/L	N	NS	-	-	1.05	-	-	1.06	-	-	3.39	-	-	0	-
ORP	millivolts	N	NS	-	-	26	-	-	169	-	-	-36	-	-	105	-
pH	pH Units	N	NS	-	-	5.69	-	-	4.08	-	-	4.84	-	-	5.94	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	10.2U	-	-	11.5J	-	-	7.2U	-	-	7.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-14	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15
			Sample Date	04/15/2010	10/01/2001	01/14/2002	04/01/2002	07/09/2002	10/03/2002	01/06/2003	01/07/2003	04/21/2003	07/15/2003	10/15/2003	05/07/2004	07/27/2004
			Field Sample ID	SB14210X	SB15401	SB15102	SB15202	SB15302	SB15402X	SB15103X	SB15103Y	SB15203X	SB15303	SB15403A	SB15204A	SB15304
			SDG	RFS39		267744	278300	292226	GWC01	GWC02	GWC02	GWC04	GWC06	GWC09	GWC11	GWC14
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.73	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	0	-	-	-	-	-	-	-	4.11	-	-	-	-
ORP	millivolts	N	NS	61	-	-	-	-	-	-	-	-29	-	-	-	-
pH	pH Units	N	NS	5.73	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	5.0U	-	5.0U	-	4.9U	-	-	6.8J	-	-	6.1J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.00065U	1.00U	1.0U	1.00U	0.9U	-	0.9U	0.9U	-	0.9U	0.9U	0.9U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	38800
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	40U	-	40U	40U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15
			Sample Date	10/26/2004	10/27/2004	02/07/2005	02/08/2005	04/19/2005	04/20/2005	07/06/2005	07/07/2005	10/12/2005	10/13/2005	01/10/2006	01/11/2006	04/10/2006
			Field Sample ID	SB15404	SB15404X	SB15105	SB15105X	SB15205	SB15205x	SB15305	SB15305X	SB15405	SB15405X	SB15106	SB15106X	SB15206
			SDG	RFF32	RFF32	RFF37	RFF37	GWC19	GWC19	950313	950313	963111	963111	974020	974020	985249
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	4.98	-	-	-	4.65	-	4.66
DO	mg/L	N	NS	-	-	-	-	-	-	0.46	-	-	-	0.65	-	0.56
ORP	millivolts	N	NS	-	-	-	-	-	-	-150	-	-	-	-157	-	1
pH	pH Units	N	NS	-	-	-	-	-	-	6.38	-	-	-	6.93	-	6.49
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	7.7J	-	4.7U	-	4.7U	-	9.3U	-	9.3U	-	9.3U	-	9.3U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.9U	-	0.5U	-	0.9U	-	0.5U	-	0.5J	-
Iron	ug/L	N	300	33200	-	31300	-	13000	-	14900	-	9290	-	28400	-	10200
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	1500	-	40U	-	40U	-	25400	-	300	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	103000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15
			Sample Date	04/11/2006	07/24/2006	07/25/2006	10/03/2006	10/04/2006	01/08/2007	01/09/2007	04/20/2007	08/15/2007	08/15/2007	10/23/2007	01/22/2008	01/23/2008
			Field Sample ID	SB15206X	SB15306	SB15306X	SB15406	SB15406X	SB15107	SB15107X	SB15207X	SB15307	SB15307X	SB15407X	SB15108	SB15108X
			SDG	985249	998726	998726	1008498	1008498	1020845	1020845	1034667	1051887	1051887	1062332	1074540	1074540
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10U	-	10U	-	10U	-	-	10.0U	-	-	10.0U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	20200J	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	1400	-	1200	-	40U	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15
			Sample Date	04/15/2008	07/16/2008	07/17/2008	10/02/2008	02/09/2009	02/10/2009	04/16/2009	08/04/2009	08/05/2009	10/14/2009	01/21/2010	01/22/2010	04/13/2010
			Field Sample ID	SB15208X	SB15308	SB15308X	SB15408X	SB15109	SB15109X	SB15209X	SB15309	SB15309X	SB15409X	SB15110	SB15110X	SB15210X
			SDG	1086598	1101155	1101155	1113167	1131631	1131631	1140893	1156453	1156453	1166426	1179741	1179741	RFS38
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	5.24	-	5.08	4.35	-	-	5	-	-
DO	mg/L	N	NS	-	-	-	-	0	-	0	3.23	-	-	0	-	-
ORP	millivolts	N	NS	-	-	-	-	-46	-	-103	-100	-	-	1	-	-
pH	pH Units	N	NS	-	-	-	-	6.24	-	5.40	5.19	-	-	6.33	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.2U	-	-	10.0U	-	-	7.2U	-	-	7.2U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15
			Sample Date	07/12/2010	07/13/2010	10/21/2010	02/16/2011	02/17/2011	04/22/2011	07/11/2011	07/12/2011	10/27/2011	01/19/2012	01/20/2012	04/13/2012
			Field Sample ID	SB15310-100712	SB15310X-100713	SB15410X	SB15111	SB15111X	SB15211X	SB15311	SB15311X	SB15411X	SB15112	SB15112X	SB15212X
			SDG	RFS56	RFS56	RFS74	RFS88	RFS88	RFT12	RFT41	RFT41	RFT82	RFU01	RFU01	RFU42
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.48	7.25	8.16	1.85	-	3.26	2.07	1.33	4.27	2.39	7.04	3.14
DO	mg/L	N	NS	1.09	0	0	10.81	-	5.03	12.89	5.61	5.45	12.94	6.25	7.09
ORP	millivolts	N	NS	-99	-40	-167	-24	-	12	-72	-33	-40	-11	112	2
pH	pH Units	N	NS	8.24	5.78	6.03	6.47	-	6.83	6.29	6.32	6.47	6.42	7.10	6.76
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	9.8U	-	-	9.8U	-	-	5.1U	-	-	5.2J	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15	SB-15
			Sample Date	07/16/2012	07/17/2012	10/02/2012	11/12/2012	11/12/2012	01/17/2013	01/18/2013	01/29/2013	05/10/2013	07/01/2013	07/03/2013	12/09/2013	12/09/2013
			Field Sample ID	SB15312	SB15312X	SB15412X	SB15A1	SB15A1X	SB15113	SB15113X	SB15A2	SB15A3X	SB15A4	SB15A4X	SB15A5	SB15A5X
			SDG	RFV10	RFV10	RFV48	RFX03	RFX03	RFX36	RFX36	RFX41	RFZ38	CP026	CP033	CP234	CP234
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.74	2.72	4.11	-	-	1.94	-	6.31	2.81	6.79	-	0.85	0.85
DO	mg/L	N	NS	12.86	5.96	7.33	-	-	4.79	-	5.8	7.67	4.89	-	5.02	5.02
ORP	millivolts	N	NS	-26	-95	-280	-	-	-86	-	-3	19.1	-76	-	-252.1	-252.1
pH	pH Units	N	NS	6.56	6.26	6.42	-	-	6.71	-	6.56	6.36	6.57	-	7.46	7.46
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	566000	-	-	-	142000	-	-	-	180000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	566000	-	-	-	142000	-	396000	-	180000
Arsenic	ug/L	N	3	14.0J	-	-	6.8U	-	0.40U	-	1.0J	-	2.1	-	6.0	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	0.40U	-	1.9J	-	6.4	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	7680	-	-	-	5670	-	28300	-	32300	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	640	-	27100	-	32500	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	51800	-	-	-	79800	-	45800	-	27000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-15	SB-15	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R
			Sample Date	03/03/2014	03/04/2014	05/16/2014	07/10/2014	07/10/2014	07/28/2014	10/03/2014	02/12/2015	03/30/2015	03/30/2015	03/31/2015	03/31/2015	05/01/2015
			Field Sample ID	SB15114	SB15114X	SB15R214X	SB15RA6	SB15RA6X	SB15RA7X	SB15R414X	SB15RA8X	D0330151	SB15R115	D0331151	SB15R115X	SB15R215X
			SDG	CS068	CS068	CS099	CP408	CP408	CP427	CS165	CP659	CS214	CS214	CS214	CS214	CS225
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	FD	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-0.96	0.32	0.32	7.12	0.52	1.81	2.66	2.66	-0.13	-0.13	1.51
DO	mg/L	N	NS	-	-	5.77	6.61	6.61	5.99	6.8	6.36	6.46	6.46	6.37	6.37	6.84
ORP	millivolts	N	NS	-	-	-419	-84.2	-84.2	-47.3	-186	-122.3	-120	-120	-130	-130	-190
pH	pH Units	N	NS	-	-	7.31	6.47	6.47	6.89	6.95	6.60	6.73	6.73	6.72	6.72	5.32
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	5.2	-	-	5.9	-	-	-	-	6.8	3.2	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	-	0.7J	0.9J	-	-	0.5U	0.5U	0.5J
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	50300	-	-	13700	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	600U	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R	SB-15R	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16
			Sample Date	07/14/2015	07/20/2015	07/21/2015	10/06/2015	10/06/2015	02/06/2018	02/07/2018	10/04/2001	01/16/2002	04/02/2002	07/08/2002	10/03/2002	01/07/2003
			Field Sample ID	SB15RA9X	SB15R315	SB15R315X	D1006151	SB15R415X	SB15R118	SB15R118X	SB16401	SB16102	SB16202	SB16302	SB16402Y	SB16103X
			SDG	CP779	CS265	CS265	CS295	CS295	CS642	CS642		268146	278558	292003	GWC01	GWC02
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0	-	0.34	-0.63	-0.63	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	6.6	-	6.61	6.32	6.32	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-122	-	-99	-195	-195	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	6.48	-	7.11	6.87	6.87	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	7.5	-	-	-	5.2	-	-	11.0	-	43.0	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.8J	0.5U	-	0.5U	0.65U	1.00U	1.0U	1.00U	0.9U	0.9U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	28300	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16
			Sample Date	01/07/2003	04/22/2003	07/08/2003	07/08/2003	10/10/2003	04/29/2004	08/03/2004	10/21/2004	02/08/2005	02/08/2005	04/22/2005	07/11/2005	07/12/2005
			Field Sample ID	SB16103Y	SB16203X	SB16303	SB16303	SB16403	SB16204A	SB16304	SB16404X	SB16105	SB16105X	SB16205X	SB16305	SB16305X
			SDG	GWC02	GWC04	GWC05	GWC06	GWC08	GWC10	GWC14	RFF31	RFF37	RFF37	GWC19	950875	950875
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	9.71	-
DO	mg/L	N	NS	-	1.1	-	-	-	-	-	-	-	-	-	0.9	-
ORP	millivolts	N	NS	-	-75	-	-	-	-	-	-	-	-	-	-170	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	6.33	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	-	11.3	-	-	-	66.3	-	19.5	-	-	27.8	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.9U	-	0.9U	0.9U	0.9U	0.9U	0.9U	-	0.9U	0.5U	-	0.9U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	40U	40U	40U	40U	-	40U	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16
			Sample Date	10/18/2005	01/03/2006	01/04/2006	04/11/2006	07/26/2006	07/27/2006	10/04/2006	01/09/2007	01/09/2007	04/24/2007	08/08/2007	08/09/2007	10/17/2007
			Field Sample ID	SB16405X	SB16106	SB16106X	SB16206X	SB16306	SB16306X	SB16406X	SB16107	SB16107X	SB16207X	SB16307	SB16307X	SB16407X
			SDG	963655	973162	973162	985249	999108	999108	1008498	1020845	1020845	1035058	1050859	1050859	1061506
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	9.93	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	1.98	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-101	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	6.99	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	30.1	-	-	32.2J	-	-	32.2	-	-	10.0U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	1400	40U	-	40U	40U	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16
			Sample Date	01/24/2008	01/25/2008	05/01/2008	07/15/2008	07/16/2008	10/03/2008	02/09/2009	02/10/2009	04/14/2009	08/10/2009	08/11/2009	10/14/2009	01/19/2010
			Field Sample ID	SB16108	SB16108X	SB16208X	SB16308	SB16308X	SB16408X	SB16109	SB16109X	SB16209X	SB16309	SB16309X	SB16409X	SB16110
			SDG	1074855	1074855	1089148	1100938	1100938	1113378	1131631	1131631	1140444	1157187	1157187	1166426	1179350
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	9.66	-	-	10.17	-	-	9.18	-	-	9.99
DO	mg/L	N	NS	-	-	-	0.69	-	-	0	-	-	4.49	-	-	0
ORP	millivolts	N	NS	-	-	-	-128	-	-	-97	-	-	-101	-	-	-51
pH	pH Units	N	NS	-	-	-	6.55	-	-	6.42	-	-	5.78	-	-	6.17
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.0U	-	-	41.5	-	-	13.7J	-	-	13.5J	-	-	16.6J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16
			Sample Date	01/20/2010	04/15/2010	07/12/2010	07/13/2010	10/29/2010	02/23/2011	02/24/2011	04/21/2011	07/11/2011	07/12/2011	10/05/2011	01/23/2012
			Field Sample ID	SB16110x	SB16210X	SB16310-100712	SB16310X-100713	SB16410X	SB16111	SB16111X	SB16211X	SB16311	SB16311X	SB16411X	SB16112
			SDG	1179350	RFS39	RFS56	RFS56	RFS76	RFS91	RFS91	RFT11	RFT41	RFT41	RFT75	RFU02
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	9.06	9.59	9.52	11.66	0.97	-	0	1.61	0.34	0	0.05
DO	mg/L	N	NS	-	0.24	2.45	0	0.03	11.54	-	NM	12.44	9.57	9.36	12.94
ORP	millivolts	N	NS	-	-81	-102	-113	-145	-95	-	-100	-94	-107	-134	-13
pH	pH Units	N	NS	-	6.26	8.25	6.16	6.72	6.55	-	6.53	6.36	6.39	6.41	6.77
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	9.8U	-	-	9.8U	-	-	5.1U	-	-	5.1U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
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Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16
			Sample Date	01/24/2012	04/19/2012	07/11/2012	07/12/2012	10/04/2012	01/14/2013	01/15/2013	05/02/2013	07/16/2013	07/17/2013	10/11/2013	02/18/2014	02/18/2014
			Field Sample ID	SB16112X	SB16212X	SB16312	SB16312X	SB16412X	SB16113	SB16113X	SB16213X	SB16313	SB16313X	SB16413X	SB16114	SB16114X
			SDG	RFU02	RFU45	RFV08	RFV08	RFV51	RFX33	RFX33	RFZ25	RFB43	RFB43	CS027	CS063	CS063
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.8	0.34	1.05	0.05	0.5	3.54	0.42	0.31	1.27	1.76	-	0.57	0.57
DO	mg/L	N	NS	9.94	11.44	11.31	9.68	10.21	12.14	10	0	9.62	9.02	-	8.91	8.91
ORP	millivolts	N	NS	-54	-93	-91	-94	-104	-117	-118	-264	-183	-186	-	-149	-149
pH	pH Units	N	NS	6.94	6.66	6.97	6.44	13.02	6.56	6.01	6.54	6.80	6.61	-	6.46	6.46
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	12.0J	-	-	3.9	-	-	8.1	-	-	8.4	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16	SB-16
			Sample Date	04/29/2014	07/23/2014	07/24/2014	10/09/2014	10/09/2014	01/15/2015	01/16/2015	05/01/2015	07/20/2015	07/21/2015	10/06/2015	09/13/2017	09/14/2017
			Field Sample ID	SB16214X	SB16314	SB16314X	D1009141	SB16414X	SB16115	SB16115X	SB16215X	SB16315	SB16315X	SB16415X	SB16A4	SB16A4X
			SDG	CS092	CS130	CS130	CS168	CS168	CS196	CS196	CS225	CS265	CS265	CS295	CS603	CS603
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.97	0.39	0.34	-	-	0.22	0.74	8.44	-	0.22	-0.92	-	2.33
DO	mg/L	N	NS	9.21	11.13	9.02	10.82	10.82	0.58	9.37	12.02	-	11.78	14.44	-	9.21
ORP	millivolts	N	NS	-183	61	-413	-	-	-135	-173	-118	-	-84	-36	-	-102
pH	pH Units	N	NS	6.88	6.34	7.56	-	-	6.56	6.54	6.38	-	6.53	7.14	-	7.10
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	364000	-	-	295000	-	-	406000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	700U	-	-	700U	-	-	1700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	364000	-	-	295000	-	-	406000
Arsenic	ug/L	N	3	-	14.6	-	-	-	5.4J	-	-	13.8	-	-	16.5	-
Arsenic	ug/L	Y	3	-	-	-	-	-	3.8J	-	-	14.8	-	-	14.9	-
Benzene	ug/L	N	1	0.5U	-	0.8J	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1	-	-
Iron	ug/L	N	300	-	-	-	-	-	31000	-	-	1230	-	-	37700	-
Iron	ug/L	Y	300	-	-	-	-	-	29200	-	-	34.4J	-	-	35400	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	40U	-	-	40U	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	12500U	-	-	46200	-	-	10000U
Sulfide	ug/L	N	NS	-	-	-	-	-	-	600U	-	-	680U	-	-	700U
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-16	SB-16	SB-16	SB-16	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17
			Sample Date	12/07/2017	12/08/2017	01/12/2018	01/12/2018	10/02/2001	01/15/2002	04/02/2002	07/11/2002	10/03/2002	01/06/2003	01/06/2003	04/22/2003	07/09/2003
			Field Sample ID	SB16A5	SB16A5X	SB16A6	SB16A6X	SB17401	SB17102	SB17202	SB17302	SB17402Y	SB17103X	SB17103Y	SB17203Y	SB17303
			SDG	CS626	CS626	CQ939	CQ939		267959	278558	292569	GWC01	GWC02	GWC02	GWC04	GWC06
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	5.45	0.67	0.67	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	8.39	7.81	7.81	-	-	-	-	-	-	-	8.13	1.69
ORP	millivolts	N	NS	-	-12	-83.9	-83.9	-	-	-	-	-	-	-	249	156
pH	pH Units	N	NS	-	7.80	6.50	6.50	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	400000	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	1700U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	400000	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	15.5	-	14.2	-	-	5.0U	-	5.0U	-	4.9U	-	-	4.9U
Arsenic	ug/L	Y	3	13.0	-	12.6	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	-	-	0.5U	0.65U	1.00U	1.0U	1.00U	0.9U	-	0.9U	0.9U	0.9U
Iron	ug/L	N	300	44600	-	18800	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	19100	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	-	-	-	-	-	-	-	3200	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	25000U	-	42600	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	700U	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17
			Sample Date	10/14/2003	05/06/2004	07/28/2004	10/27/2004	02/07/2005	02/08/2005	04/20/2005	07/06/2005	07/07/2005	10/13/2005	01/10/2006	01/11/2006	04/11/2006
			Field Sample ID	SB17403	SB17204	SB17304	SB17404X	SB17105	SB17105X	SB17205X	SB17305	SB17305X	SB17405X	SB17106	SB17106X	SB17206X
			SDG	GWC09	GWC11	GWC14	RFF32	RFF37	RFF37	GWC19	950313	950313	963111	974020	974020	985249
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	8.88	-	-	8.59	-	9.1
DO	mg/L	N	NS	-	-	-	-	-	-	-	3.63	-	-	6.12	-	5.44
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-120	-	-	98	-	229
pH	pH Units	N	NS	-	-	-	-	-	-	-	5.25	-	-	6.08	-	5.80
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	4.7U	-	4.7U	-	-	9.3U	-	-	9.3U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.9U	0.9U	0.9U	0.9U	-	0.9U	0.5U	-	0.9U	0.5U	-	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	98J	40U	62J	-	960	4200	-	40U	40U	-	760	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	37600	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17
			Sample Date	07/24/2006	07/25/2006	10/06/2006	01/08/2007	01/09/2007	04/20/2007	08/13/2007	08/14/2007	10/23/2007	01/22/2008	01/23/2008	04/29/2008	07/16/2008
			Field Sample ID	SB17306	SB17306X	SB17406X	SB17107	SB17107X	SB17207X	SB17307	SB17307X	SB17407X	SB17108	SB17108X	SB17208X	SB17308
			SDG	998726	998726	1008884	1020845	1020845	1034667	1051501	1051501	1062332	1074540	1074540	1088682	1101155
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	6.22	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	0.9	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	190	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	4.29	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10U	-	-	10U	-	-	10.0U	-	-	10.0U	-	-	10.2U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	250	300	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17
			Sample Date	07/17/2008	10/02/2008	02/09/2009	02/10/2009	04/22/2009	08/03/2009	08/04/2009	10/14/2009	01/19/2010	01/20/2010	04/15/2010	07/12/2010
			Field Sample ID	SB17308X	SB17408X	SB17109	SB17109X	SB17209X	SB17309	SB17309X	SB17409X	SB17110	SB17110X	SB17210X	SB17310-100712
			SDG	1101155	1113167	1131631	1131631	1141708	1156238	1156238	1166426	1179350	1179350	RFS39	RFS56
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	6.86	-	-	-	-	-	6.17	-	8.62	7.14
DO	mg/L	N	NS	-	-	4.73	-	-	-	-	-	3.6	-	3.46	1.53
ORP	millivolts	N	NS	-	-	253	-	-	-	-	-	255	-	386	183
pH	pH Units	N	NS	-	-	5.92	-	-	-	-	-	5.50	-	4.28	4.98
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	10.0U	-	-	7.2U	-	-	7.2U	-	-	9.8U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17
			Sample Date	07/13/2010	10/21/2010	01/24/2011	02/23/2011	02/24/2011	04/21/2011	07/11/2011	07/12/2011	10/06/2011	01/23/2012	04/03/2012	07/11/2012
			Field Sample ID	SB17310X-100713	SB17410X	SB17112X	SB17111	SB17111X	SB17211X	SB17311	SB17311X	SB17411X	SB17112	SB17212X	SB17312
			SDG	RFS56	RFS74	RFU02	RFS91	RFS91	RFT11	RFT41	RFT41	RFT76	RFU02	RFU36	RFV08
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.11	6.03	-	9.26	10.24	4.16	1.73	1.47	4.46	0.09	2.02	2.46
DO	mg/L	N	NS	0	0.82	-	5.99	5.69	5.29	6.95	6.47	5.76	7.93	7.73	6.4
ORP	millivolts	N	NS	206	2	-	2.88	323	382	335	360	231	294	207	237
pH	pH Units	N	NS	4.75	4.77	-	4.50	4.50	4.15	4.13	4.23	4.16	4.91	4.42	5.52
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	16.2J	-	-	10.5J	-	-	43.0	-	95.4J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17
			Sample Date	07/12/2012	10/04/2012	01/17/2013	01/18/2013	04/25/2013	04/25/2013	07/16/2013	07/17/2013	10/01/2013	10/11/2013	10/17/2013	03/26/2014	03/27/2014
			Field Sample ID	SB17312X	SB17412X	SB17113	SB17113X	D0425131	SB17213X	SB17313	SB17313X	SB17A1	SB17413X	SB17A2	SB17114	SB17114X
			SDG	RFV08	RFV51	RFX36	RFX36	RFZ13	RFZ13	RFB43	RFB43	CP126	CS027	CP153	CS077	CS077
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1	1.2	8.84	3.26	0.12	0.12	2.27	1.89	-	-	-	7.85	5.17
DO	mg/L	N	NS	6.31	6.44	5.64	5.93	6.61	6.61	5.5	5.52	-	-	-	6	6.93
ORP	millivolts	N	NS	215	217	17	122	57	57	-2	9	-	-	-	51	-60
pH	pH Units	N	NS	4.71	9.67	6.01	4.11	4.32	4.32	4.51	4.30	-	-	-	4.08	3.85
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	2.4	-	-	-	10.7	-	2.1	-	2U	14.2	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	1.4J	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	-	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	2600	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	54U	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B2 East Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17	SB-17
			Sample Date	05/15/2014	07/23/2014	07/24/2014	10/09/2014	03/30/2015	03/31/2015	05/05/2015	07/20/2015	07/21/2015	10/08/2015
			Field Sample ID	SB17214X	SB17314	SB17314X	SB17414X	SB17115	SB17115X	SB17215X	SB17315	SB17315X	SB17415X
			SDG	CS098	CS130	CS130	CS168	CS214	CS214	CS226	CS265	CS265	CS296
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.4	5.75	4.1	-	14.14	6.03	2.08	-	0.36	-
DO	mg/L	N	NS	6.37	6.41	6.34	8.66	8	7.51	8.9	-	7.96	-
ORP	millivolts	N	NS	-116	282	24	-	263	277	320	-	227	-
pH	pH Units	N	NS	4.29	4.60	4.10	-	4.18	4.27	4.26	-	5.26	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	15.3	-	-	6.4	-	-	2.8	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	Y	NS	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1
			Sample Date	12/04/2002	12/04/2002	02/06/2003	02/06/2003	06/16/2003	03/10/2005	08/11/2005	03/07/2006	09/01/2006	03/13/2007	03/04/2008	02/18/2009	03/11/2010
			Field Sample ID	A21TP1AX	A21TP1AY	A21TP1BX	A21TP1BY	A21TP1C	A21TP1E	A21TP1F	A21TP1G	A21TP1H	A21TP1I	A21TP1JX	A21TP1KX	A21TP1LX
			SDG	RFE43	RFE43	RFE62	RFE62	RFE77	RFF43	955073	980623	1004086	1029141	1080011	1132740	RFS33
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	1.84	1.84	0.93	0.93	1.63	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-43	-43	55	55	-71	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	229000	-	240000	220000	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	410U	410U	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	229000	-	240000	220000	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	-	4.9U	-	4.9U	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	35500	-	30900	-	37200	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	40U	40U	40U	40U	40U	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	25000J	-	33000	33100	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	A21TP1	MP-05	MP-05	MP-05	MP-05	MP-05	MP-05	MP-05
			Sample Date	04/26/2011	06/07/2012	05/23/2013	09/23/2014	02/22/2018	02/23/2018	04/24/2013	04/24/2013	06/19/2013	06/19/2013	03/13/2014	03/13/2014	06/26/2014
			Field Sample ID	A21TP1MX	A21TP1NX	A21TP1OX	A21TP1PX	A21TP1S	A21TP1SX	MP05A1	MP05A1X	MP05A2	MP05A2X	MP05A4	MP05A4X	MP05A5X
			SDG	RFT13	RFU80	RFZ65	CS159	CS652	CS652	RFZ07	RFZ07	CP008	CP008	CP277	CP277	CP389
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.69	1.77	7.47	8.56	-	-	9	9	10.15	10.15	12.4	12.4	10.08
DO	mg/L	N	NS	6.16	7.44	0.21	0.14	-	-	6.31	6.31	1.58	1.58	2.93	2.93	3.63
ORP	millivolts	N	NS	45	-95	-136	108	-	-	22.5	22.5	17.1	17.1	-19.2	-19.2	-34.7
pH	pH Units	N	NS	6.73	6.64	6.53	6.66	-	-	6.45	6.45	6.61	6.61	6.95	6.95	6.2
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	1.2J	-	7.4	-	9.1	-	14.0	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	3.4	-	9.7	-	6.2	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	14800	-	6770	-	29100	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	2520	-	4080	-	7220	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	5100	-	3000J	-	8400	1800J
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MP-05	MP-05	MP-05	MP-05	MP-05	MP-05	MP-05	MP-05	MP-05	MP-05	MP-05	MP-05	MP-06
			Sample Date	07/30/2014	07/31/2014	01/06/2015	01/06/2015	12/10/2015	12/10/2015	12/12/2016	12/13/2016	05/09/2017	05/09/2017	11/27/2017	11/27/2017	05/06/2013
			Field Sample ID	MP05A6	MP05A6X	MP05A7	MP05A7X	MP05A8	MP05A8X	MP05A9	MP05B1X	MP05B2	MP05B2X	MP05B3	MP05B3X	MP06A1
			SDG	CP432	CP438	CP633	CP633	CP958	CP959	CQ483	CQ486	CQ631	CQ631	CQ904	CQ904	RFZ29
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.26	-	11.9	11.9	9.42	9.42	-	4.1	11.1	11.1	9.78	9.78	3.1
DO	mg/L	N	NS	2.13	-	2.07	2.07	1.04	1.04	-	0.19	6.79	6.79	2.46	2.46	9.23
ORP	millivolts	N	NS	-37.8	-	48.4	48.4	-58.9	-58.9	-	201.1	-4.1	-4.1	-21.6	-21.6	-64.3
pH	pH Units	N	NS	6.39	-	6.83	6.83	6.6	6.6	-	6.23	6.37	6.37	5.98	5.98	6.57
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	9.9	-	4.7	-	2.1	-	7.6	-	1.2J	-	2.9	-	22.0
Arsenic	ug/L	Y	3	9.1	-	1.1UJ	-	2.1	-	2.8	-	1.1J	-	-	-	2.7
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	18000	-	59100	-	22200	-	42700	-	3900	-	58200	-	161000
Iron	ug/L	Y	300	8930	-	4980	-	29100	-	30300	-	16400	-	-	-	97900
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	4500J	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	3000J	-	12100	-	-	-	18100	-	8100J+	-	22200	-
Sulfide	ug/L	N	NS	-	-	-	1200U	-	680U	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MP-06	MP-06	MP-06	MP-06	MP-06	MP-06	MP-06	MP-06	MP-06	MP-06	MP-06	MP-06	MP-06
			Sample Date	05/07/2013	06/17/2013	06/18/2013	03/12/2014	03/12/2014	03/12/2014	06/27/2014	06/27/2014	07/29/2014	07/29/2014	01/06/2015	01/06/2015	07/07/2015
			Field Sample ID	MP06A1X	MP06A2	MP06A2X	MP06A3	MP06A3	MP06A3X	MP06A4	MP06A4X	MP06A5	MP06A5X	MP06A6	MP06A6X	MP06A7
			SDG	RFZ29	CP003	CP005	CP272	CP275	CP275	CP391	CP391	CP431	CP431	CP633	CP633	CP770
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.16	3.05	6.25	5.37	5.37	5.37	7.95	7.95	9	9	6.15	6.15	9.43
DO	mg/L	N	NS	4.2	0.19	0	0.07	0.07	0.07	0.2	0.2	0.22	0.22	1.6	1.6	1.43
ORP	millivolts	N	NS	-95.4	-61.8	-33.4	-187.3	-187.3	-187.3	-1265	-1265	-424	-424	-93.9	-93.9	-41
pH	pH Units	N	NS	5.84	6.28	6.19	11.96	11.96	11.96	8.34	8.34	7.61	7.61	7.38	7.38	7.5
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	8.9	-	-	816	-	325	-	111	-	35.8	-	37.7
Arsenic	ug/L	Y	3	-	3.9	-	753	-	-	32.0	-	12.8	-	20.6	-	22.4
Benzene	ug/L	N	1	730	-	990	-	-	1900	-	1300	-	1500	-	3100	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	95300	-	-	33000	-	817000	-	253000	-	35300	-	13900
Iron	ug/L	Y	300	-	89900	-	5090	-	-	3260	-	1880	-	38700	-	5490
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	16700	-	4700J	-	-	6000U	-	2740000	-	1770000	-	1520000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	6900	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MP-06	MP-06	MP-06	MP-06	MP-06	MP-06	MP-06	MP-06	MP-06	MP-06	MP-06	MW-0024	MW-0024
			Sample Date	07/07/2015	12/09/2015	12/14/2015	06/10/2016	06/10/2016	12/13/2016	12/14/2016	05/10/2017	05/11/2017	11/27/2017	11/27/2017	06/29/1995	09/20/1996
			Field Sample ID	MP06A7X	MP06A8	MP06A8X	MP06A9	MP06A9X	MP06B1	MP06B1X	MP06B2	MP06B2X	MP06B3	MP06B3X	MW-0024-A	MW-0024A
			SDG	CP770	CP955	CP967	CQ137	CQ137	CQ486	CQ488	CQ635	CQ637	CQ904	CQ904	PROJB506361	64183
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.43	-	7.41	4.52	4.52	-	2.48	-	3.44	8.03	8.03	-	-
DO	mg/L	N	NS	1.43	-	5.3	0.65	0.65	-	0.09	-	0.55	4.7	4.7	-	-
ORP	millivolts	N	NS	-41	-	-33	-132.2	-132.2	-	-214	-	-81.3	-69.8	-69.8	-	-
pH	pH Units	N	NS	7.5	-	7.37	7	7	-	7.18	-	7.42	6.81	6.81	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	17.6	-	10.4	-	6.5	-	7.6	-	12.2	-	-	15.4
Arsenic	ug/L	Y	3	-	7.8	-	5.3	-	3.6	-	4.1	-	7.3	-	-	-
Benzene	ug/L	N	1	2100	-	3800J	-	2500	-	2600	-	1200	-	3500	5.0U	1U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	19300	-	13800	-	13800	-	13800	-	20000	-	-	-
Iron	ug/L	Y	300	-	10700	-	13200	-	10700	-	8920	-	6510	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	426000	-	236000	-	28300	-	30200	-	1600000	-	879000	-	-
Sulfide	ug/L	N	NS	-	-	7400	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024
			Sample Date	10/15/2002	10/15/2002	02/04/2003	02/04/2003	09/02/2003	05/24/2004	09/28/2004	09/29/2004	06/14/2005	06/15/2005	11/10/2005	11/11/2005	06/12/2006
			Field Sample ID	M024A1X	M024A1Y	M024A2X	M024A2Y	M024A5	M024A6	M024A7	M024A7X	M024A8	M024A8X	M024A9	M024A9X	M024B1
			SDG	RFE30	RFE30	RFE62	RFE62	RFE85	RFF12	RFF26	RFF26	947574	947574	967213	967213	993388
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	6.71	-	6.69	-	-	-	-
DO	mg/L	N	NS	1.37	1.37	2.82	2.82	-	-	0.53	-	0.44	-	-	-	-
ORP	millivolts	N	NS	63	63	152	152	-	-	4	-	100	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	6.50	-	6.45	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	242000	-	181000	203000	-	-	248000	-	245000	-	169000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	410U	410U	-	-	410U	-	410U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	242000	-	181000	203000	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	5.3J	-	4.9U	-	5.6J	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	0.5U	-	-	-	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	34.9U	-	150	-	116J	49.5U	397	-	126J	-	389	-	56.0J
Iron	ug/L	Y	300	-	-	-	-	-	49.5U	145J	-	37.8U	-	37.8U	-	52.2U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	190	-	40U	40U	-	-	40U	-	380	-	290	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	74000	-	25900	18900	-	-	14100	-	21700	-	32200	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024
			Sample Date	06/13/2006	11/29/2006	11/30/2006	06/12/2007	06/12/2007	08/07/2008	08/08/2008	07/08/2009	07/09/2009	06/08/2010	06/08/2010	07/25/2011
			Field Sample ID	M024B1X	M024B2	M024B2X	M024B3	M024B3X	M024B4	M024B4X	M024B5	M024B5X	M024B6-100608	M024B6X-100608	D0725111
			SDG	993388	1016155	1016155	1042260	1042260	1104631	1104631	1152857	1152857	RFS46	RFS46	RFT46
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	6.42	-	6.12	-	1.06	1.06	2.53
DO	mg/L	N	NS	-	-	-	-	-	0.61	-	0	-	6.36	6.36	7.32
ORP	millivolts	N	NS	-	-	-	-	-	121	-	27	-	-35	-35	-24
pH	pH Units	N	NS	-	-	-	-	-	6.23	-	6.36	-	6.67	6.67	6.91
Alkalinity to pH 4.5	ug/L	N	NS	152000	-	127000	-	155000	-	235000	-	154000	-	148000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	10.2U	-	7.2U	-	7.2U	-	10.5J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	60.3J	-	52.2U	-	52.2U	-	52.2U	-	53.4J	-	-
Iron	ug/L	Y	300	-	52.2U	-	52.2U	-	52.2U	-	52.2U	-	52.2U	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	2000	-	340	-	670	-	1000	-	1000	-	180	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	29300	-	24200	-	21400	-	26400	-	22500	-	19200	-
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0024	MW-0029	MW-0029
			Sample Date	07/25/2011	07/26/2011	07/26/2011	02/27/2012	02/28/2012	04/04/2013	04/05/2013	05/29/2014	05/30/2014	02/18/2015	02/19/2015	10/13/1997	12/12/2014
			Field Sample ID	M024B7	D0726111	M024B7X	M024B8	M024B8X	M024B9	M024B9X	M024C1	M024C1X	M024C2	M024C2X	MW-0029-A1	M029A2X
			SDG	RFT46	RFT46	RFT46	RFU13	RFU13	RFY57	RFY57	CS107	CS107	CS202	CS202	E26617	CS192
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.53	1.07	1.07	0.07	1.89	6.63	6.63	5.96	5.97	6.77	6.79	-	4.54
DO	mg/L	N	NS	7.32	7	7	6.87	6.88	5.99	1.08	1.85	1.3	3.41	1.72	-	-
ORP	millivolts	N	NS	-24	-35	-35	137	289	-49	-172	-459	-505	-22	-286	-	-
pH	pH Units	N	NS	6.91	6.74	6.74	7.50	6.49	7.39	6.97	6.89	6.76	7.16	7.08	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	132000	-	181000	-	212000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	700U	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	132000	-	181000	-	212000	-	-
Arsenic	ug/L	N	3	9.9J	-	-	5.1U	-	6.1	-	9.2	-	6.9	-	11	-
Arsenic	ug/L	Y	3	-	-	-	-	-	4.0	-	5.6	-	4.8	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	167	400
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	518	-	463	-	279	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	35.5J	-	43.0U	-	33.4U	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	1100	-	240	-	310	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	196000	-	57500	-	35900	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	600U	-	600U	-	680U	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0029	MW-0029	MW-0029	MW-0029	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030
			Sample Date	11/20/2017	11/20/2017	02/14/2018	02/16/2018	04/08/1997	09/09/1998	09/10/1998	02/19/1999	10/04/1999	02/01/2000	11/09/2000	11/14/2000	03/28/2001
			Field Sample ID	M029A5	M029A5X	M029A6	M029A6X	MW-0030-A1	M030A3X	M030A3Y	M030A4	M030A5	M030A6	M030A7X	M030A7Y	M030A8
			SDG	CQ897	CQ897	CQ976	CQ979	E20285	E39280	E39280	90656	93965	00399	B2465	B2465	E88311
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	5.9	-	4.4	-	30.1	-	5.0U	4.18U	4.18U	4.52	-	5.8B*	5.0U
Arsenic	ug/L	Y	3	-	-	3.5	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	320	-	340	0.47U	1.0U	-	1U	1.0U	1.0U	1U	-	1.0U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	127000	-	99000	-	-	-	-	-	-	239000	-	-	-
Iron	ug/L	Y	300	-	-	102000	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030
			Sample Date	01/29/2002	03/21/2002	07/31/2002	08/14/2002	12/04/2002	12/05/2002	03/13/2003	03/14/2003	06/19/2003	06/19/2003	09/03/2003	06/17/2004	10/06/2004
			Field Sample ID	M030A9	M030B1	M030B2	M030B2T	M030B3X	M030B3Y	M030B4X	M030B4Y	M030B5	M030B5	M030B6	M030B7-061704	M030B8
			SDG	269988	HPA02	295373	297195	RFE43	RFE45	RFE67	RFE67	RFE76	RFE77	RFE85	RFF14	RFF28
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	1.99	-	2.88	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-30	-	78	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	190000	-	-	-	189000	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	410U	-	410U	-	410U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	190000	-	182000	-	189000	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	5.0U	-	7.00	5.0U	7.9J	-	4.9U	-	5.0J	-	7.1J	4.7U	4.7U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1.00U	-	1.0U	2.0U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	15700	-	70J	-	287	-	17300	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	400U	-	-	-	610	-	-	-	320	1200	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	1260000	-	1410000	-	1060000	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030
			Sample Date	10/07/2004	06/08/2005	06/09/2005	11/01/2005	11/02/2005	11/13/2006	11/14/2006	05/24/2007	05/25/2007	11/29/2007	11/30/2007	06/26/2008	06/26/2008
			Field Sample ID	M030B8X	M030B9	M030B9X	M030C1	M030C1X	M030C3	M030C3X	M030C4	M030C4X	M030C5	M030C5X	M030C6	M030C6X
			SDG	RFF28	946781	946781	965777	965777	1014239	1014239	1040018	1040018	1067672	1067672	1098093	1098093
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	5.07	-	5.09	-	-	-	-	-	-	-	4.91	4.91
DO	mg/L	N	NS	-	0.77	-	0	-	-	-	-	-	-	-	1.3	1.3
ORP	millivolts	N	NS	-	5	-	-134	-	-	-	-	-	-	-	29	29
pH	pH Units	N	NS	-	6.60	-	6.99	-	-	-	-	-	-	-	6.68	6.68
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.3U	-	9.3U	-	10U	-	10.0U	-	10.0U	-	10.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	4020	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	200U	-	-	-	40U	-	40U	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030
			Sample Date	10/13/2008	10/14/2008	06/23/2009	06/24/2009	11/16/2009	11/17/2009	05/10/2010	05/11/2010	05/11/2010	10/05/2010	10/06/2010	05/31/2011
			Field Sample ID	M030C7	M030C7X	M030C8	M030C8X	M030C9	M030C9X	M030D1-100510	D0511101	M030D1X-100511	M030D2	M030D2X	M030D3
			SDG	1114995	1114995	1150741	1150741	RFS20	RFS20	RFS42	RFS42	RFS42	RFS69	RFS69	RFT26
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.19	-	4.8	-	4.59	-	1.5	0	0	3.17	2.03	1.46
DO	mg/L	N	NS	0	-	0	-	0.78	-	0	0	0	0	5.04	8.81
ORP	millivolts	N	NS	2	-	-74	-	86	-	-61	0	0	-9	9	-50
pH	pH Units	N	NS	6.46	-	6.34	-	6.38	-	6.23	0.00	0.00	6.33	6.10	6.24
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.2U	-	7.2U	-	7.2U	-	8.2J	-	-	9.8U	-	9.8U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	2610	-	8670	-	2560	-	2280	-	-	4210	-	124J
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030
			Sample Date	06/01/2011	11/09/2011	11/10/2011	02/13/2012	02/14/2012	08/06/2012	08/07/2012	03/04/2013	03/05/2013	09/23/2013	09/24/2013	06/02/2014	06/03/2014
			Field Sample ID	M030D3X	M030D4	M030D4X	M030D5	M030D5X	M030D6	M030D6X	M030D7	M030D7X	M030D8	M030D8X	M030D9	M030D9X
			SDG	RFT26	RFT85	RFT85	RFU10	RFU10	RFV25	RFV25	RFX90	RFX90	CS014	CS014	CS108	CS108
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0	1.93	0.74	5.82	2.65	2.57	3.65	5.08	8.4	4.93	-	-	7.31
DO	mg/L	N	NS	8.86	8.84	8.79	8.83	5.8	8.98	8.72	-0.54	-0.54	0.77	-	2.77	1.67
ORP	millivolts	N	NS	0	-132	-96	-72	-15	-55	-126	-222	-279	-348	-	-251	-470
pH	pH Units	N	NS	0.00	6.50	6.43	6.68	6.44	10.87	6.72	6.64	6.56	6.47	-	6.61	6.61
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	489000	-	684000	-	381000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	489000	-	684000	-	381000
Arsenic	ug/L	N	3	-	5.1U	-	5.1U	-	2.0J	-	3.1	-	2.5	-	3.7	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	1.6J	-	2.8	-	2.8	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	1280	-	400	-	5880	-	2340	-	5940	-	5360	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	1860	-	5460	-	4690	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	43J	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	1060000	-	819000	-	957000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	2100	-	1800J	-	600U

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030
			Sample Date	11/06/2014	11/07/2014	06/29/2015	06/30/2015	09/29/2015	09/30/2015	03/09/2016	03/10/2016	08/25/2016	08/25/2016	08/26/2016	08/26/2016	09/08/2017
			Field Sample ID	M030E1	M030E1X	M030E2	M030E2X	M030E3	M030E3X	M030E4	M030E4X	D0825161	M030E5	D0826161	M030E5X	M030E7
			SDG	CS183	CS183	CS256	CS256	CS292	CS292	CS371	CS371	CS446	CS446	CS446	CS446	CS600
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	FD	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	8.84	5.02	8.98	-	7.72	5.06	8.01	-	-	8.42	8.42	8.15
DO	mg/L	N	NS	-0.84	0.57	0.36	7.06	1.57	4.73	0.97	7.74	0.99	0.99	2.06	2.06	1.46
ORP	millivolts	N	NS	-50	-76	-128	-8	1	70	-15	-99	-73.98	-73.98	67	67	-20
pH	pH Units	N	NS	6.65	6.35	6.75	6.49	6.29	6.30	6.78	6.71	6.51	6.51	6.57	6.57	6.34
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	421000	-	613000	-	390000	-	287000	-	-	398000	352000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	700U	-	-	1700U	1700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	421000	-	613000	-	390000	-	287000	-	-	398000	352000	-
Arsenic	ug/L	N	3	0.89J	-	2.7	-	3.8J	-	1.8J	-	5.8J	5.9J	-	-	2.8
Arsenic	ug/L	Y	3	0.82U	-	2.5	-	3.7J	-	1.9J	-	4.4	5.1	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	1100	-	4830	-	6100	-	2200	-	5960	6040	-	-	4850
Iron	ug/L	Y	300	97.5J	-	3810	-	5180	-	2330	-	3790	3940	-	-	4140
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	-	40J	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	1280000	-	827000	-	1450000	-	1340000	-	-	1370000	1420000	-
Sulfide	ug/L	N	NS	-	6100	-	2800	-	1600J	-	1400J	-	-	1000J	950J	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0030	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031
			Sample Date	09/08/2017	04/08/1997	09/16/1997	09/11/1998	09/15/1998	02/19/1999	10/05/1999	02/01/2000	11/17/2000	02/05/2002	03/21/2002	07/31/2002	08/08/2002
			Field Sample ID	M030E7X	MW-0031-A1	MW-0031-A2	M031A3X	M031A3Y	M031A4	M031A5	M031A6	M031A7	M031A9	M031A10	M031B2	M031B2TX
			SDG	CS600	E20285	E25691	E39319	E39480	90656	93965	00399	B2465	270693	HPA02	295373	296626
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.15	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	1.46	-	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-20	-	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	6.34	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	1700U	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	509000	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	14	29.4	5.4	-	5.32	4.18U	7.46	2.9B*	5.0U	-	5.0U	15.0
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.47U	0.8U	-	1.0U	1U	1.0U	1.0U	1U	1.00U	-	1.0U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	245000	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	-	-	-	-	-	-	400U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	851000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	4400	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031
			Sample Date	08/08/2002	12/03/2002	12/03/2002	03/13/2003	03/13/2003	06/11/2003	08/28/2003	06/14/2004	06/15/2004	10/04/2004	10/05/2004	06/08/2005
			Field Sample ID	M031B2TY	M031B3X	M031B3Y	M031B4X	M031B4Y	M031B5	M031B6	M031B7	M031B7A-061504	M031B8	M031B8X	M031B9
			SDG	296626	RFE43	RFE43	RFE67	RFE67	RFE76	RFE85	RFF14	RFF14	RFF27	RFF27	946781
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	1.38	1.38	1.88	1.88	1.26	-	-	-	-	-	-
ORP	millivolts	N	NS	-	164	164	-94	-94	-37	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	426000	-	-	344000	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	410U	-	-	410U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	426000	-	426000	344000	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	4.9U	-	4.9U	-	4.9U	4.9U	4.7U	-	4.7U	-	9.3U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	2.0U	-	0.5U	-	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	5570	-	23100	-	11700	14400	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	-	40U	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	3000U	-	6000U	3000U	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031
			Sample Date	06/09/2005	11/01/2005	11/02/2005	11/15/2006	11/16/2006	05/30/2007	05/31/2007	11/29/2007	11/30/2007	06/19/2008	06/26/2008	10/13/2008	10/14/2008
			Field Sample ID	M031B9X	M031C1	M031C1X	M031C3	M031C3X	M031C4	M031C4X	M031C5	M031C5X	M031C6X	M031C6	M031C7	M031C7X
			SDG	946781	965777	965777	1014679	1014679	1040574	1040574	1067672	1067672	1098093	1098093	1114995	1114995
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	3.56	-	-	3.58	3.64	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	0.09	-	-	0.41	0	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-172	-	-	-42	-37	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	7.11	-	-	6.74	6.74	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.3U	-	10U	-	10.0U	-	10.0U	-	-	10.2U	10.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5UJ	-	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031
			Sample Date	06/23/2009	06/24/2009	11/16/2009	11/17/2009	05/10/2010	05/11/2010	10/05/2010	10/06/2010	05/31/2011	06/01/2011	11/09/2011	11/10/2011
			Field Sample ID	M031C8	M031C8X	M031C9	M031C9X	M031D1-100510	M031D1X-100511	M031D2	M031D2X	M031D3	M031D3X	M031D4	M031D4X
			SDG	1150741	1150741	RFS20	RFS20	RFS42	RFS42	RFS69	RFS69	RFT26	RFT26	RFT85	RFT85
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.94	-	3.22	-	2.37	0	1.25	0	0.43	0	2.22	1.2
DO	mg/L	N	NS	0	-	0.83	-	7.42	4.01	6.25	3.34	6.36	3.52	6.54	3.62
ORP	millivolts	N	NS	-61	-	-142	-	-113	-164	-187	-72	-130	-134	-109	-101
pH	pH Units	N	NS	6.44	-	6.79	-	6.59	6.71	6.82	6.30	6.60	6.37	6.76	6.74
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	7.2U	-	7.2U	-	7.2U	-	9.8U	-	9.8U	-	5.1U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0031	MW-0031	MW-0031	MW-0031	MW-0031R	MW-0031R	MW-0031R	MW-0031R	MW-0031R	MW-0031R	MW-0031R	MW-0031R	MW-0031R
			Sample Date	02/13/2012	02/14/2012	08/06/2012	08/07/2012	04/24/2013	04/25/2013	09/23/2013	09/24/2013	06/04/2014	06/05/2014	11/06/2014	11/07/2014	02/12/2015
			Field Sample ID	M031D5	M031D5X	M031D6	M031D6X	M031RA1	M031RA1X	M031RA2	M031RA2X	M031RA3	M031RA3X	M031RA4	M031RA4X	M031RA5
			SDG	RFU10	RFU10	RFV25	RFV25	RFZ13	RFZ13	CS014	CS014	CS109	CS109	CS183	CS183	CS201
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-0.13	-0.09	2.55	3.58	3.97	4.07	4.04	-	-	3.73	-	3.97	3.34
DO	mg/L	N	NS	5.33	3.96	7.67	3.79	2.84	0.13	0.59	-	2.19	1.42	3.57	-0.74	3.51
ORP	millivolts	N	NS	-133	-91	-169	-152	-131	-194	-352	-	-205	-353	-100	-155	-120
pH	pH Units	N	NS	7.18	7.06	8.67	6.85	7.35	7.23	6.95	-	6.91	7.06	7.15	7.03	7.38
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	343000	-	435000	-	393000	-	431000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	700U	-	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	343000	-	435000	-	393000	-	431000	-
Arsenic	ug/L	N	3	5.1U	-	0.94J	-	6.7	-	6.5	-	7.8	-	6.8	-	5.2
Arsenic	ug/L	Y	3	-	-	-	-	6.7	-	5.8	-	6.8	-	4.6	-	5.1
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	17400	-	9620	-	14800	-	9640	-	14900
Iron	ug/L	Y	300	-	-	-	-	17300	-	6280	-	12900	-	6060	-	13900
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	10000U	-	12500U	-	10000U	-	10000U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	600U	-	600U	-	600U	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0031R	MW-0031R	MW-0031R	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032
			Sample Date	02/13/2015	09/29/2015	09/30/2015	04/08/1997	09/15/1997	09/11/1998	09/15/1998	02/22/1999	10/05/1999	02/02/2000	11/20/2000	03/29/2001	02/06/2002
			Field Sample ID	M031RA5X	M031RA6	M031RA6X	MW-0032-A1	MW-0032-A2	M032A3X	M032A3Y	M032A4	M032A5	M032A6	M032A7	M032A8	M032A9
			SDG	CS201	CS292	CS292	E20285	E25691	E39319	E39480	90706	93965	00399	C2465	E88340	270891
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.63	3.83	3.62	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	1.51	0.63	4.17	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-120	-79	-42	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	7.27	6.79	6.86	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	346000	-	470000	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	346000	-	470000	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.4	-	12	21.7	5.1	-	8.65	4.18U	4.18U	-	5.0U	5.0U
Arsenic	ug/L	Y	3	-	7.5	-	-	-	-	-	-	-	-	5.0U	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	1.3	0.8U	-	1.0U	1.0U	1.0U	1.0U	-	1.0U	1.00U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	1U	-	-
Iron	ug/L	N	300	-	8740	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	5220	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	12500U	-	5000U	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	680U	-	680U	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032
			Sample Date	03/21/2002	08/01/2002	08/07/2002	08/08/2002	12/03/2002	12/03/2002	04/08/2003	04/08/2003	06/11/2003	08/28/2003	10/04/2004	10/05/2004	06/08/2005
			Field Sample ID	M032B1	M032B2	M032B2TX	M032B2TY	M032B3X	M032B3Y	M032B4X	M032B4Y	M032B5	M032B6	M032B7	M032B7X	M032B8
			SDG	HPA02	295476	296434	296626	RFE43	RFE43	RFE70	RFE70	RFE76	RFE85	RFF27	RFF27	946781
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	4.2	-	4.06
DO	mg/L	N	NS	-	-	-	-	1.11	1.11	2.55	2.55	1.32	-	0.35	-	0.72
ORP	millivolts	N	NS	-	-	-	-	67	67	-5	-5	-121	-	-125	-	-199
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	6.78	-	7.16
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	569000	-	326000	345000	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	410U	-	410U	410U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	569000	-	326000	345000	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	11.0	12.0	-	4.9U	-	13	-	5.2J	4.9J	4.7U	-	9.3U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	1.0U	-	2.0U	-	0.5U	-	0.5U	0.5U	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	2610	-	15600	-	15600	13500	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	400U	-	-	-	-	40U	-	40U	40U	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	3000U	-	6000U	3000U	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032
			Sample Date	06/09/2005	11/02/2005	11/03/2005	05/30/2007	05/30/2007	05/31/2007	05/31/2007	11/28/2007	11/29/2007	06/30/2008	07/01/2008	10/13/2008	10/14/2008
			Field Sample ID	M032B8X	M032B9	M032B9X	M032C3	M032C3	M032C3X	M032C3X	M032C4	M032C4X	M032C5	M032C5X	M032C6	M032C6X
			SDG	946781	965984	965984	1014679	1040574	1014679	1040574	1067442	1067442	1098780	1098780	1114995	1114995
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	4.21	-	-	-	-	-	-	-	3.93	-	4.13	-
DO	mg/L	N	NS	-	0	-	-	-	-	-	-	-	0.61	-	0	-
ORP	millivolts	N	NS	-	-280	-	-	-	-	-	-	-	-156	-	-142	-
pH	pH Units	N	NS	-	7.44	-	-	-	-	-	-	-	7.31	-	6.80	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	12.7J	-	10U	10.0U	-	-	10.0U	-	33.8	-	20.3	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	-	0.5U	0.5U	-	0.5U	-	3U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	-	40U	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032
			Sample Date	06/30/2009	07/01/2009	11/16/2009	11/17/2009	05/10/2010	05/11/2010	10/05/2010	10/06/2010	05/31/2011	06/01/2011	11/09/2011	11/10/2011
			Field Sample ID	M032C7	M032C7X	M032C8	M032C8X	M032C9-100510	M032C9X-100511	M032D1	M032D1X	M032D2	M032D2X	M032D3	M032D3X
			SDG	1151840	1151840	RFS20	RFS20	RFS42	RFS42	RFS69	RFS69	RFT26	RFT26	RFT85	RFT85
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.85	-	3.8	-	1.74	0.06	1.96	0	0.93	0	2.88	1.28
DO	mg/L	N	NS	0	-	0.73	-	6.53	4.42	4.25	3.79	7.08	3.83	6.02	4.04
ORP	millivolts	N	NS	-159	-	-107	-	-168	-151	-131	-98	-141	-103	-117	-40
pH	pH Units	N	NS	6.66	-	6.57	-	6.83	7.06	6.97	6.67	6.84	6.70	6.71	6.97
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	8.6J	-	20.7	-	10.8J	-	9.8U	-	10.2J	-	5.7J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032
			Sample Date	03/08/2012	03/09/2012	08/06/2012	08/07/2012	03/14/2013	03/15/2013	09/24/2013	09/25/2013	06/04/2014	06/05/2014	11/06/2014	11/07/2014	02/12/2015
			Field Sample ID	M032D4	M032D4X	M032D5	M032D5X	M032D6	M032D6X	M032D7	M032D7X	M032D8	M032D8X	M032D9	M032D9X	M032E1
			SDG	RFU16	RFU16	RFV25	RFV25	RFY11	RFY11	CS015	CS015	CS109	CS109	CS183	CS183	CS201
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.43	1.03	3.25	3.31	3.46	3.9	3.8	-	-	3.54	-	3.73	3.15
DO	mg/L	N	NS	6.27	4.21	7.18	4.1	7.17	1.88	0.52	-	0.97	1.66	0.05	-0.72	3.34
ORP	millivolts	N	NS	-137	-30	-177	-49	-188	-203	-395	-	-210	-334	-64	-113	-94
pH	pH Units	N	NS	7.09	6.93	10.57	7.10	7.15	7.21	7.08	-	6.83	7.08	6.68	6.85	6.86
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	267000	-	300000	-	242000	-	304000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	700U	-	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	267000	-	300000	-	242000	-	304000	-
Arsenic	ug/L	N	3	7.6J	-	6.3	-	4.3	-	2.0J	-	11.0	-	1.5J	-	2.1
Arsenic	ug/L	Y	3	-	-	-	-	3.9	-	1.4J	-	10.4	-	1.2J	-	0.82U
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	9800	-	3720	-	22900	-	3380	-	5620
Iron	ug/L	Y	300	-	-	-	-	8990	-	1480	-	21400	-	1330	-	2910
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	42J	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	19100	-	2500U	-	2500U	-	2500U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	600U	-	600U	-	600U	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0033	MW-0033
			Sample Date	02/13/2015	09/30/2015	10/01/2015	03/09/2016	03/10/2016	08/25/2016	08/26/2016	03/21/2017	03/22/2017	09/08/2017	09/08/2017	04/08/1997	07/29/1997
			Field Sample ID	M032E1X	M032E2	M032E2X	M032E3	M032E3X	M032E4	M032E4X	M032E5	M032E5X	M032F6	M032F6X	MW-0033-A1	MW-0033-A2
			SDG	CS201	CS293	CS293	CS371	CS371	CS446	CS446	CS529	CS529	CS600	CS600	E20285	73337
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.78	3.5	3.46	3.28	6.48	-	3.82	3.42	3.78	3.75	3.75	-	-
DO	mg/L	N	NS	1.32	0.23	3.73	0.04	2.34	0.42	1.01	1.58	10.98	0.96	0.96	-	-
ORP	millivolts	N	NS	-123	-65	-46	-194	-110	-134.94	-87	-95	-60	-43	-43	-	-
pH	pH Units	N	NS	6.91	7.01	6.56	7.65	6.81	7.2	6.5	7.2	7.09	6.57	6.57	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	227000	-	311000	-	220000	-	343000	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	700U	-	1700U	-	1700U	-	1700U	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	227000	-	311000	-	220000	-	343000	-	229000	-	297000	-	-
Arsenic	ug/L	N	3	-	3.2	-	5.1	-	9.0J	-	1.8J	-	4.1	-	18.6	-
Arsenic	ug/L	Y	3	-	2.3	-	4.1	-	7.8	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	5	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.92	1U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	5540	-	6290	-	7590	-	2480	-	2000	-	-	-
Iron	ug/L	Y	300	-	3490	-	5290	-	6180	-	426	-	80.5U	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	3300J	-	2220000	-	14100	-	2500U	-	2500U	-	2500U	-	-
Sulfide	ug/L	N	NS	680U	-	830J	-	700U	-	700U	-	700U	-	700U	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033
			Sample Date	09/16/1997	09/14/1998	02/24/1999	10/07/1999	03/21/2002	06/06/2003	08/28/2003	03/08/2004	03/10/2004	10/04/2004	10/05/2004	06/09/2005	06/10/2005
			Field Sample ID	MW-0033-A3	M033A4	M033A5	M033A6	M033A2	M033A9	M033B1	M033B1B	M033B1A	M033B2	M033B2X	M033B3	M033B3X
			SDG	E25731	E39389	90706	93965	HPA02	RFE75	RFE85	RFE99	RFE99	RFF27	RFF27	947003	947003
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	9.2	-
DO	mg/L	N	NS	-	-	-	-	-	2.19	-	-	-	-	-	0.84	-
ORP	millivolts	N	NS	-	-	-	-	-	-79	-	-	-	-	-	-185	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	6.67	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	628000	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	410U	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	628000	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	424	23.9	22.8	21.5	-	31.7	17.1	21.9	-	7.4J	-	9.3U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.8U	1.0U	1.0U	1.0U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	36700	18700	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	400U	1000U	40U	-	40U	-	200U	-	400U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	6000U	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033
			Sample Date	11/07/2005	11/08/2005	11/20/2006	11/21/2006	06/05/2007	06/06/2007	11/28/2007	11/29/2007	08/06/2008	08/07/2008	10/16/2008	10/17/2008	07/20/2009
			Field Sample ID	M033B4	M033B4X	M033B6	M033B6X	M033B7	M033B7X	M033B8	M033B8X	M033B9	M033B9X	M033C1	M033C1X	M033C2
			SDG	966572	966572	1015254	1015254	1041430	1041430	1067442	1067442	1104403	1104403	1115719	1115719	1154382
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.58	-	-	-	-	-	-	-	9.18	-	9.28	-	9.15
DO	mg/L	N	NS	0	-	-	-	-	-	-	-	2.29	-	0	-	1.96
ORP	millivolts	N	NS	-214	-	-	-	-	-	-	-	-149	-	-128	-	-75
pH	pH Units	N	NS	6.82	-	-	-	-	-	-	-	6.53	-	6.78	-	5.96
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	23.5	-	17.2J	-	16.6J	-	16.5J	-	13.8J	-	16.0J	-	7.2U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	3U	-	5U	-	5U	-	3U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	33200	-	26400	-	28100
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033
			Sample Date	07/21/2009	11/17/2009	11/18/2009	05/25/2010	05/25/2010	05/26/2010	05/26/2010	10/05/2010	10/06/2010	05/25/2011	05/26/2011
			Field Sample ID	M033C2X	M033C9	M033C3X	D0525101-100525	M033C4-100525	D0526101-100526	M033C4X-100526	M033C5	M033C5X	M033C6	M033C6X
			SDG	1154382	RFS20	RFS20	RFS44	RFS44	RFS44	RFS44	RFS69	RFS69	RFT25	RFT25
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	8.98	-	0.82	0.82	0	0	0	-	1	0
DO	mg/L	N	NS	-	0.82	-	0	0	11.44	11.44	12.29	-	0	11.09
ORP	millivolts	N	NS	-	-81	-	-109	-109	0	0	0	-	0	0
pH	pH Units	N	NS	-	6.21	-	6.69	6.69	0.00	0.00	0.00	-	0.00	0.00
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	7.6J	-	10.0J	7.2U	-	-	9.8U	-	9.8U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	-	0.5U	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	39700	-	45700	35800	-	-	23400	-	18000	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0033	MW-0034
			Sample Date	02/15/2012	02/15/2012	02/16/2012	02/16/2012	03/19/2013	04/10/2013	06/04/2014	06/04/2014	06/05/2014	06/05/2014	02/12/2015	02/13/2015	04/08/1997
			Field Sample ID	D0215121	M033C7	D0216121	M033C7X	M033C8X	M033D1	D0604141	M033D2	D0605141	M033D2X	M033D3	M033D3X	MW-0034-A1
			SDG	RFU11	RFU11	RFU11	RFU11	RFY13	RFY73	CS109	CS109	CS109	CS109	CS201	CS201	E20285
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	FD	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	11.56	9.78	13.66	13.66	9.01	9.01	13.88	11.71	-
DO	mg/L	N	NS	10.05	10.05	10.61	10.61	-	1.3	0.84	0.84	-	-	4.21	0.13	-
ORP	millivolts	N	NS	-147	-147	-	-	-	-192	-214	-214	-	-	-130	-129	-
pH	pH Units	N	NS	6.86	6.86	-	-	-	6.41	6.37	6.37	-	-	6.66	6.24	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	465000	-	-	-	365000	285000	-	300000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	700U	-	-	-	700U	700U	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	465000	-	-	-	365000	285000	-	300000	-
Arsenic	ug/L	N	3	5.1U	5.1U	-	-	-	53.6	12.1	12.8	-	-	5.4	-	15.6
Arsenic	ug/L	Y	3	-	-	-	-	-	51.6	10.6	10.6	-	-	5.6	-	-
Benzene	ug/L	N	1	-	-	0.5U	0.5U	0.5U	-	-	-	0.5U	0.5U	-	0.5U	0.47U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	33900	32700	-	-	-	17100	25400	25200	-	-	53700	-	-
Iron	ug/L	Y	300	-	-	-	-	-	17600	25400	24800	-	-	52200	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	64J	-	-	-	40U	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	1660000	-	-	-	2500U	2500U	-	10000U	-
Sulfide	ug/L	N	NS	-	-	-	-	600U	-	-	-	600U	600U	-	680U	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034
			Sample Date	09/16/1997	09/14/1998	02/22/1999	10/06/1999	02/03/2000	11/15/2000	04/02/2001	02/07/2002	03/21/2002	08/01/2002	08/07/2002	10/28/2002	10/28/2002
			Field Sample ID	MW-0034-A2	M034A3	M034A4	M034A5	M034A6	M034A7	M034A8	M034A9	M034B1	M034B2	M034B2T	M034B4X	M034B4Y
			SDG	E25691	E39389	90706	93965	00399	B2465	E88536	271027	HPA02	295476	296434	RFE35	RFE35
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	0.51	0.51
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	-57	-57
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	570000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	570000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	5U	5.0U	4.18U	4.18U	4.18U	8.1B*	5.0U	5.0U	-	6.00	5.0U	4.9U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.8U	1.0U	1.0U	1.0U	1.0U	0.6	1.0U	1.00U	-	1.0U	2.0U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	102	-	-	-	-	-	-	34.9U	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	400U	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	810000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034
			Sample Date	02/12/2003	02/12/2003	08/26/2003	08/27/2003	03/04/2004	09/29/2004	09/30/2004	06/13/2005	06/14/2005	11/07/2005	11/08/2005	11/27/2006	11/28/2006
			Field Sample ID	M034B5X	M034B5Y	M034B7	M034B4	M034B8	M034B9	M034B9X	M034C1	M034C1X	M034C2	M034C2X	M034C4	M034C4X
			SDG	RFE64	RFE64	RFE85	RFE85	RFE98	RFF27	RFF27	947365	947365	966572	966572	1015744	1015744
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	6.36	-	8.3	-	8.02	-	-	-
DO	mg/L	N	NS	0.83	0.83	-	-	-	3.15	-	0.3	-	0	-	-	-
ORP	millivolts	N	NS	-295	-295	-	-	-	94	-	-255	-	-252	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	6.04	-	6.98	-	7.55	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	567000	-	253000	-	567000	-	587000	-	546000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	410U	-	410U	-	410U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	736000	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	-	4.9U	-	4.9U	4.7U	-	9.3U	-	9.3U	-	10U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	35U	-	45.3U	-	-	49.5U	-	85.9J	-	37.8U	-	52.2U	-
Iron	ug/L	Y	300	-	-	-	-	45.3U	49.5U	-	37.8U	-	37.8U	-	52.2U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	180	40U	-	150	-	400U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	798000	-	-	1010000	-	915000	-	604000	-	813000	-	718000
Sulfide	ug/L	N	NS	-	-	-	-	15600	-	7300	-	13300	-	14900	-	16200

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034
			Sample Date	06/05/2007	06/06/2007	11/15/2007	11/16/2007	06/08/2008	08/07/2008	10/16/2008	10/17/2008	07/06/2009	07/07/2009	11/17/2009	11/18/2009	05/25/2010
			Field Sample ID	M034C5	M034C5X	M034C6	M034C6X	M034C7	M034C7X	M034C8	M034C8X	M034C9	M034C9X	M034D1	M034D1X	M034D2-100525
			SDG	1041430	1041430	1066019	1066019	1104403	1104403	1115719	1115719	1152446	1152446	RFS20	RFS20	RFS44
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	8.87	-	-	-	7.14	-	7.71	-	7.45	-	1.69
DO	mg/L	N	NS	-	-	1.18	-	-	-	1.65	-	0	-	0.89	-	8.06
ORP	millivolts	N	NS	-	-	-258	-	-	-	-80	-	-279	-	-299	-	-249
pH	pH Units	N	NS	-	-	7.11	-	-	-	6.44	-	6.69	-	6.70	-	7.25
Alkalinity to pH 4.5	ug/L	N	NS	-	518000	-	552000	-	481000	-	337000	-	368000	-	225000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.0U	-	10.0U	-	10.2U	-	10.2U	-	7.2U	-	8.3J	-	7.2U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	3U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	52.2U	-	52.2U	-	52.2U	-	52.2U	-	60.5J	-	52.2U	-	52.2U
Iron	ug/L	Y	300	261U	-	52.2U	-	52.2U	-	52.2U	-	60.2J	-	86.1J	-	52.2U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	230	-	40U	-	430	-	810	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	494000	-	1070000	-	1050000	-	3160000	-	1120000	-	1190000	-
Sulfide	ug/L	N	NS	-	14300	-	17700	-	14400	-	12300	-	1800J	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034
			Sample Date	05/26/2010	10/05/2010	10/06/2010	05/25/2011	05/26/2011	11/09/2011	11/10/2011	02/15/2012	02/16/2012	08/06/2012	08/07/2012	03/11/2013
			Field Sample ID	M034D2X-100526	M034D3	M034D3X	M034D4	M034D4X	M034D5	M034D5X	M034D6	M034D6X	M034D7	M034D7X	M034D8
			SDG	RFS44	RFS69	RFS69	RFT25	RFT25	RFT85	RFT85	RFU11	RFU11	RFV25	RFV25	RFX98
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0	-	-	0.2	0	6.24	5.42	-0.12	3.17	1.89	4.31	6.85
DO	mg/L	N	NS	7.73	-	-	8.11	8.04	7.83	7.18	8.22	8.31	7.59	8.11	6.93
ORP	millivolts	N	NS	-356	-	-	-102	-327	-136	-41	-182	-143	-168	-355	-294
pH	pH Units	N	NS	7.11	-	-	6.71	6.88	6.91	6.61	7.37	7.00	10.87	7.21	6.95
Alkalinity to pH 4.5	ug/L	N	NS	438000	-	314000	-	547000	-	164000	-	284000	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	700U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	453000	-
Arsenic	ug/L	N	3	-	9.8U	-	9.8U	-	5.1U	-	5.1U	-	1.3J	-	1.0J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	0.86J
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	366	-	55.3J	-	44.6J	-	30.7J	-	33.3U	-	74.8J
Iron	ug/L	Y	300	-	128J	-	52.2U	-	14.1U	-	32.0J	-	33.3U	-	33.3U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	200U	-	40U	-	40U	-	550	-	40U	-	190	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	817000	-	1150000	-	442000	-	1050000	-	1140000	-	1270000	-
Sulfide	ug/L	N	NS	3400	-	2400	-	11100	-	1100J	-	8300	-	8600	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034
			Sample Date	03/11/2013	09/24/2013	09/25/2013	06/23/2014	06/24/2014	11/06/2014	11/07/2014	02/18/2015	02/19/2015	09/30/2015	10/01/2015	02/02/2016	02/15/2016
			Field Sample ID	M034D8X	M034D9	M034D9X	M034E1	M034E1X	M034E2	M034E2X	M034E3	M034E3X	M034E4	M034E4X	M034HS	M034E5
			SDG	RFX98	CS015	CS015	CS116	CS116	CS183	CS183	CS202	CS202	CS293	CS293	CS349	CS357
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	SP	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.85	8.1	-	-	7.94	-	7.11	7.69	7.66	7.49	6.77	-	-
DO	mg/L	N	NS	6.93	0.4	-	1.45	0.07	5.04	0.18	5.42	1.17	5.88	6.22	-	6.538
ORP	millivolts	N	NS	-294	-283	-	-10.5	-226	73	72	-50	-243	-39	-37	-	-314
pH	pH Units	N	NS	6.95	6.91	-	6.87	6.96	6.46	6.59	6.53	7.10	6.23	6.40	-	7.21
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	223000	-	332000	-	259000	-	186000	-	133000	-	156000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	700U	-	700U	-	-	-	700U	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	223000	-	332000	-	259000	-	186000	-	133000	-	156000	-	-
Arsenic	ug/L	N	3	-	1.9J	-	1.1J	-	1.1J	-	0.87J	-	1.9J	-	-	5.4U
Arsenic	ug/L	Y	3	-	1.4J	-	1.2J	-	1.0J	-	0.82U	-	2.1	-	-	5.4U
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	3	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	87.5J	-	33.4U	-	33.4U	-	33.4U	-	65.0J	-	-	33.3U
Iron	ug/L	Y	300	-	43.0U	-	33.4U	-	33.4U	-	33.4U	-	33.3U	-	-	33.3U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	530	-	210	-	230	-	190	-	720	-	690	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1280000	-	1660000	-	1180000	-	1680000	-	1340000	-	2500U	-	-
Sulfide	ug/L	N	NS	2000J	-	9400	-	4000	-	600U	-	2000J	-	1100J	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035
			Sample Date	02/16/2016	08/16/2016	08/17/2016	03/23/2017	03/24/2017	09/05/2017	09/06/2017	04/08/1997	09/16/1997	09/15/1998	02/24/1999	10/06/1999	10/06/1999
			Field Sample ID	M034E5X	M034E6	M034E6X	M034E7	M034E7X	M034E8	M034E8X	MW-0035-A1	MW-0035-A2	M035A3	M035A4	M035A5	M035A5
			SDG	CS357	CS441	CS441	CS531	CS531	CS599	CS599	E20312	E25691	E39480	90706	93965	
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.22	-	7.96	8.6	8.57	7.81	7.98	-	-	-	-	-	-
DO	mg/L	N	NS	2.7	1.95	4.58	3.39	11.11	0.24	0.88	-	-	-	-	-	-
ORP	millivolts	N	NS	-283	-98.33	-20	-348	-169	-318	-259	-	-	-	-	-	-
pH	pH Units	N	NS	7.02	6.79	6.58	7.25	6.76	7.02	6.89	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	290000	-	915000	-	366000	-	321000	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	1700U	-	1700U	-	1700U	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	290000	-	915000	-	366000	-	321000	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	1.9J	-	3.4	-	1.1J	-	6.5	38.8	13.6	4.18U	6.23	-
Arsenic	ug/L	Y	3	-	1.5J	-	2.7	-	1.1J	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3	-	0.5U	-	0.5U	-	0.5U	2.5	0.8U	1.0U	1.0U	1.0U	1
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	74.7U	-	74.7U	-	80.5U	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	74.7U	-	74.7U	-	80.5U	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	50J	-	83J	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1260000	-	1500000	-	1260000	-	1020000	-	-	-	-	-	-
Sulfide	ug/L	N	NS	5900	-	20300	-	10400	-	9500	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035
			Sample Date	02/10/2000	11/14/2000	11/14/2000	11/14/2000	11/14/2000	03/07/2002	03/07/2002	03/07/2002	03/07/2002	03/21/2002	08/02/2002	08/13/2002	08/14/2002
			Field Sample ID	M035A6	M035A7	M035A7D	M035A7M	M035A7S	M035A9	M035A9D	M035A9M	M035A9S	M035B1	M035B2	M035B2TX	M035B2TY
			SDG	00473	B2465	B2465	B2465	B2465	274943	274943	274943	274943	HPA02	295754	297101	297195
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.18U	3.7B*	3.4B*	2.5U	2.5U	5.0U	5.0U	5.0U	5.0U	-	13.0	23.0	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1.0U	1U	1U	1U	1U	1.00U	1.00U	1.00U	1.00U	-	0.800	-	36.2
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	2420	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035
			Sample Date	09/25/2002	09/25/2002	10/01/2002	10/01/2002	03/12/2003	03/13/2003	09/24/2003	05/26/2004	05/26/2004	05/26/2004	05/26/2004
			Field Sample ID	M035PS3	M035PSL	M035B3X	M035B3Y	M035B4X	M035B4Y	M035B5	040526MW-0035	040526MW-0035	040526MW-0035D	040526MW-0035D
			SDG	RFE25	RFE25	RFE24	RFE24	RFE67	RFE67	RFE87	PHS01	PHS02	PHS01	PHS02
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	2.21	2.21	2.6	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	137	137	1	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	221000	-	-	-	302000	-	301000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	410U	-	410U	-	410U	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	221000	-	157000	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	4.9U	-	4.9U	-	5.2J	15.2	-	14.9	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	9.9J	-	10.7
Benzene	ug/L	N	1	90	8	-	0.5U	-	0.5U	0.5U	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	404	-	5300	-	403	4240	-	6070	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	774	-	945
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	-	40U	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	29500	-	11300	-	11900	-	12200	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035	MW-0035
			Sample Date	08/09/2004	03/10/2005	08/11/2005	03/07/2006	09/01/2006	03/13/2007	09/21/2007	02/28/2008	02/29/2008	02/18/2009	03/11/2010	04/26/2011	06/07/2012
			Field Sample ID	MW035B6	M035B7	M035B8	M035B9	M035C1	M035C2	M035C3	M035C4	M035C4X	M035C5X	M035C6X	M035C7X	M035C8X
			SDG	RFF18	RFF43	955073	980623	1004086	1029141	1057469	1079627	1079627	1132740	RFS33	RFT13	RFU80
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	2.59	-	-	-	2.62	2.41
DO	mg/L	N	NS	-	-	-	-	-	-	-	0.22	-	-	-	0	2.41
ORP	millivolts	N	NS	-	-	-	-	-	-	-	136	-	-	-	0	30
pH	pH Units	N	NS	-	-	-	-	-	-	-	7.97	-	-	-	0.00	7.11
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	14.0	-	-	-	-	-	-	10.0U	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	5	0.5U	47	0.5U	2J	0.5U	21	-	0.5U	2J	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	1380	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	390	0.040U	1500	40U	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0035	MW-0035	MW-0035	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039
			Sample Date	05/21/2013	06/25/2014	02/23/2018	03/19/2002	03/27/2002	10/22/2002	10/22/2002	02/14/2003	02/14/2003	09/18/2003	09/24/2004	05/26/2005	11/01/2005
			Field Sample ID	M035C9X	M035D1X	M035D5	M039A1	M039A2	M039A3X	M039A3Y	M039A4X	M039A4Y	M039A5	M039A6	M039A7	M039A8X
			SDG	RFZ61	CS117	CS652	HPA01	HPA06	RFE34	RFE34	RFE64	RFE64	RFE86	RFF25	RFF56	965566
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.01	2.92	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	0.24	0.82	-	-	-	1.41	1.41	0.65	0.65	-	-	-	-
ORP	millivolts	N	NS	-177	-90	-	-	-	30	30	0	0	-	-	-	-
pH	pH Units	N	NS	7.79	7.39	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	513000	-	571000	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	6000	-	7600	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	500000	-	555000	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	7.5J	-	4.9U	-	4.9U	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.6J	2	1	-	-	-	12	-	29	2J	3J	4J	15
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	754	-	1400	-	540	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	400U	400U	-	40U	-	40U	40U	40U	40U	400U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	1500U	-	1500U	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039
			Sample Date	05/25/2006	11/17/2006	06/08/2007	08/19/2008	08/20/2008	07/20/2009	07/21/2009	06/15/2010	06/15/2010	08/01/2011	08/02/2011	03/26/2012
			Field Sample ID	M039A9	M039B1	M039B2	M039B3	M039B3X	M039B4	M039B4X	M039B5-100615	M039B5X-100615	M039B6	M039B6X	M039B7
			SDG	991108	1014876	1041869	1106372	1106372	1154382	1154382	RFS47	RFS47	RFT49	RFT49	RFU30
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	4.77	-	5.28	-	4.37	4.37	2.86	1.59	1.77
DO	mg/L	N	NS	-	-	-	0	-	2.21	-	5.22	5.22	10.53	5.01	9.2
ORP	millivolts	N	NS	-	-	-	-129	-	-78	-	-104	-104	30	90	70
pH	pH Units	N	NS	-	-	-	8.57	-	6.95	-	8.27	8.27	7.75	7.60	7.96
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	10.2U	-	7.2U	-	9.8U	-	5.2J	-	5.1U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	5J	6	-	9	-	10	-	5J	-	6	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	2000U	40U	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0039	MW-0057	MP-06	MP-06	MP-06
			Sample Date	03/27/2012	04/10/2013	04/11/2013	09/04/2014	09/05/2014	04/15/2015	04/16/2015	03/01/2018	03/01/2018	10/30/2002	07/29/2014	01/06/2015	01/06/2015
			Field Sample ID	M039B7X	M039B8	M039B8X	M039B9	M039B9X	M0039C1	M0039C1X	M039C4	M039C4X	M057A1	MP06A5X	MP06A6	MP06A6X
			SDG	RFU30	RFY73	RFY73	CS152	CS152	CS221	CS221	CS655	CS655	LNA05	CP431	CP633	CP633
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.58	5.11	4.54	6.36	6.39	5.7	5.66	-	-	-	9	6.15	6.15
DO	mg/L	N	NS	5.89	6.49	7.6	0.14	-0.5	1.73	-1.19	-	-	0	0.22	1.6	1.6
ORP	millivolts	N	NS	24	-60	-79	209	174	212	15	-	-	0	-424	-93.9	-93.9
pH	pH Units	N	NS	7.28	7.42	8.22	7.42	7.37	7.76	7.83	-	-	-	7.61	7.38	7.38
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	144000	-	286000	-	142000	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	700U	-	700U	-	1700U	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	144000	-	286000	-	142000	-	135000	-	-	-	-
Arsenic	ug/L	N	3	-	6.1	-	17.1J	-	2.5	-	8.9	-	-	-	35.8	-
Arsenic	ug/L	Y	3	-	5.7	-	1.4J	-	2.2	-	-	-	-	-	20.6	-
Benzene	ug/L	N	1	7	-	0.5U	-	7	-	1	-	0.5U	0.5U	1500	-	3100
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	564	-	735	-	38.1J	-	80.5U	-	-	-	35300	-
Iron	ug/L	Y	300	-	38.9J	-	575	-	33.4U	-	80.5U	-	-	-	38700	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	2600	-	40U	-	41J	-	490	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	25200	-	2500U	-	16400	-	22200	-	1770000	-	1520000
Sulfide	ug/L	N	NS	-	-	600U	-	600U	-	680U	-	700U	-	-	-	6900

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MP-06	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057
			Sample Date	07/07/2015	09/27/2004	09/28/2004	06/06/2005	06/07/2005	11/01/2005	11/02/2005	05/30/2006	05/31/2006	11/30/2006	12/01/2006	06/04/2007	06/05/2007
			Field Sample ID	MP06A7	M057A2	M057A2X	M057A3	M057A3X	M057A4	M057A4X	M057A5	M057A5X	M057A6	M057A6X	M057A7	M057A7X
			SDG	CP770	RFF26	RFF26	RFF58	RFF58	965777	965777	991597	991597	1016343	1016343	1041205	1041205
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.43	9.31	-	9.42	-	9.21	-	-	-	-	-	-	-
DO	mg/L	N	NS	1.43	0.8	-	4.55	-	0	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-41	-17	-	-20	-	-171	-	-	-	-	-	-	-
pH	pH Units	N	NS	7.5	6.56	-	6.67	-	7.21	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	266000	-	166000	-	252000	-	202000	-	233000	-	122000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	410U	-	410U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	37.7	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	22.4	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	13900	8960	-	2850	-	11600	-	1890	-	12900J	-	6140	-
Iron	ug/L	Y	300	5490	247	-	908	-	7680	-	52.2U	-	52.2U	-	1780	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	40U	-	40U	-	61J	-	40U	-	41J
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	62200	-	70700	-	47200	-	27900	-	54400	-	71100
Sulfide	ug/L	N	NS	-	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057
			Sample Date	07/30/2008	07/31/2008	05/18/2009	05/18/2009	06/07/2010	06/08/2010	08/17/2011	08/18/2011	03/12/2012	03/13/2012	05/23/2012	05/24/2012
			Field Sample ID	M057A8	M057A8X	M057A9	M057A9X	M057B1-100607	M057B1X-100608	M057B2	M057B2X	M057B3	M057B3X	M057B4	M057B4X
			SDG	1103309	1103309	1145283	1145283	RFS46	RFS46	RFT60	RFT60	RFU17	RFU17	RFU72	RFU73
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.6	-	-	-	1.19	0.09	5.35	4.79	1.92	0.68	2.07	3.7
DO	mg/L	N	NS	1.02	-	-	-	12.22	9.03	15.99	9.16	18.06	9.8	16.41	9.51
ORP	millivolts	N	NS	-20	-	-	-	-66	-101	-87	30	-22	-37	-17	-51
pH	pH Units	N	NS	7.03	-	-	-	6.99	6.77	7.08	7.12	6.27	6.49	6.52	6.75
Alkalinity to pH 4.5	ug/L	N	NS	-	318000	-	311000	-	244000	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.2U	-	10.0U	-	7.2U	-	5.1U	-	5.1U	-	5.1U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	14600	-	4430	-	3170	-	-	-	5850	-	11000	-
Iron	ug/L	Y	300	61.7J	-	52.2U	-	177J	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	82J	-	94J	-	40U	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	39300	-	50000U	-	56900	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	530U	-	10600U	-	530U	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057
			Sample Date	07/25/2012	07/26/2012	11/20/2012	11/20/2012	02/20/2013	06/12/2013	09/09/2013	09/09/2013	11/06/2013	03/05/2014	08/05/2014	08/05/2014	10/23/2014
			Field Sample ID	M057B5	M057B5X	D1120121	M057B6	M057B7	M057B8	D0909131	M057B9	M057C1	M057C2	D0805141	M057C4	M057C5
			SDG	RFV16	RFV17	RFX10	RFX10	RFX68	RFB02	CS006	CS006	CS040	CS069	CS136	CS136	CS176
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	REG	REG	FD	REG	REG	REG	FD	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.69	-	5.11	5.11	8.66	6.65	6.99	6.99	7.38	7.34	4.89	4.89	7.46
DO	mg/L	N	NS	9.88	-	-	-	3.12	2.49	0.64	0.64	0.84	3.19	1.85	1.85	1.6
ORP	millivolts	N	NS	-14	-	-136	-136	-125	-25	-207	-207	-289	-64	-412	-412	-133
pH	pH Units	N	NS	11.55	-	6.86	6.86	7.08	7.03	7.27	7.27	6.74	7.04	7.07	7.07	6.63
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	6.8U	-	1.9J	2.2	0.44J	3.4	2.8	3.4	4.2	1.4J	5.6	5.4	4.1
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	4330	-	28700	29800	3400	7090	15100	15100	31600	6170	38400	38800	25800
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0057	MW-0058	MW-0058	MW-0058	MW-0058	MW-0058	MW-0058	MW-0058
			Sample Date	03/03/2015	05/29/2015	09/16/2015	11/13/2015	10/09/2017	01/22/2018	10/07/2010	03/29/2012	03/27/2013	02/07/2014	11/20/2017	11/20/2017	11/20/2017
			Field Sample ID	M057C6	M057C7	M057C8	M057C9	M057D8	M057D9	M058A1	M058A2X	M058A3X	M058A4X	D1120179	M058A7	M058A7X
			SDG	CS205	CS244	CS285	CS314	CS613	CS634	RFS71	RFU34	RFY36	CS060	CQ897	CQ897	CQ897
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.13	-	9.26	7.95	6.93	7.02	3.6	-	2.33	2.48	-	-	-
DO	mg/L	N	NS	5.54	-	4.74	0.22	0.65	3.48	8.53	3.32	-	-	-	-	-
ORP	millivolts	N	NS	94	-	-99	-107	122	173	-103	-	-	-	-	-	-
pH	pH Units	N	NS	7.24	-	6.52	6.63	7.14	7.32	6.85	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	2.2	1.0J	3.2	3.2	1.4J	0.78J	-	-	-	-	1.9J	2.5	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	74	4J	0.6J	0.5U	0.6J	-	0.6J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	9990	2210	22800	15200	1200	2720	-	-	-	-	13500	15200	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0058	MW-0058	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030
			Sample Date	02/16/2018	02/16/2018	05/31/2006	06/01/2006	12/11/2006	12/12/2006	06/11/2007	06/12/2007	11/01/2005	11/02/2005	11/13/2006	11/14/2006	05/24/2007
			Field Sample ID	M058A8	M058A8X	M060A1	M060A1X	M060A2	M060A2X	M060A3	M060A3X	M030C1	M030C1X	M030C3	M030C3X	M030C4
			SDG	CQ979	CQ983	991777	991777	1017858	1017858	1042260	1042260	965777	965777	1014239	1014239	1040018
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	5.09	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	0	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-134	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	6.99	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	382000	-	422000	-	338000	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	460U	-	460U	-	460U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	1.9J	-	-	-	-	-	-	-	9.3U	-	10U	-	10.0U
Arsenic	ug/L	Y	3	1.7J	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	69	-	61	-	48	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	1270	-	7750	-	17400J	-	11200	-	-	-	-	-	-
Iron	ug/L	Y	300	986	-	5530	-	8560J	-	7860	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	23200	-	6800J	-	41000	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	530U	-	530U	-	530U	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0030	MW-0030	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060
			Sample Date	05/25/2007	11/29/2007	07/31/2008	08/01/2008	06/10/2009	06/10/2009	06/11/2009	06/21/2010	06/22/2010	07/27/2011	07/28/2011	03/28/2012
			Field Sample ID	M030C4X	M030C5	M060A4	M060A4X	M060A5	M060A5	M060A5X	M060A6-100621	M060A6X-100622	M060A7	M060A7X	M060A8
			SDG	1040018	1067672	1103488	1103488	1137656	1148815	1148815	RFS48	RFS48	RFT48	RFT48	RFU34
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	3.08	-	2.98	2.98	-	4.75	0	1.87	-	2.63
DO	mg/L	N	NS	-	-	0.12	-	0.47	0.47	-	10.07	5.54	14.16	10.07	3.6
ORP	millivolts	N	NS	-	-	-156	-	-128	-128	-	-119	0	-	-	-121
pH	pH Units	N	NS	-	-	6.75	-	7.18	7.18	-	7.07	0.00	-	-	7.36
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	358000	-	-	264000	-	333000	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	460U	-	-	460U	-	460U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	10.2U	-	-	7.2U	-	9.8U	-	5.1U	-	5.1U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	-	31	8	-	19	-	46	-	53	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	11600	-	-	6770	-	7640	-	9060	-	6130
Iron	ug/L	Y	300	-	-	9350	-	-	6310	-	2840	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	-	40U	-	40U	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	22000	-	-	22200	-	8500	-	-	-
Sulfide	ug/L	N	NS	-	-	-	530U	-	-	530U	-	530U	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0060	MW-0061	MW-0061	MW-0061	MW-0061
			Sample Date	03/29/2012	03/26/2013	03/27/2013	02/10/2014	02/11/2014	11/21/2017	11/21/2017	02/14/2018	02/14/2018	06/19/2008	10/15/2008	04/01/2009	11/21/2017
			Field Sample ID	M060A8X	M060A9	M060A9X	M060B1	M060B1X	M060B4	M060B4X	M060B5	M060B5X	M061A1	M061A2X	M061A3	M061A4
			SDG	RFU34	RFY36	RFY36	CS061	CS061	CQ899	CQ899	CQ976	CQ976	1097627	1115231	1138850	CQ899
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	3.35	4.37	8.51	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	5.12	2.44	-	0.67	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-247	-	-187	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	6.90	-	7.03	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	207000	-	271000	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	700U	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	207000	-	271000	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	0.59J	-	0.95J	-	0.89J	-	1.2J	-	-	-	-	2.1
Arsenic	ug/L	Y	3	-	0.53J	-	0.78U	-	-	-	0.95J	-	-	-	-	-
Benzene	ug/L	N	1	10	-	3J	-	2J	-	0.5U	-	0.5U	37	42	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	4400	-	3800	-	3730	-	4540	-	-	-	-	2400
Iron	ug/L	Y	300	-	3740	-	2250	-	-	-	1360	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	40U	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	15900	-	19400	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	600U	-	600U	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0061	MW-0061	MW-0061	MW-0062	MW-0062	MW-0062	MW-0062	MW-0062	MW-0062	MW-0062	MW-0063	MW-0063	MW-0063
			Sample Date	11/21/2017	02/14/2018	02/14/2018	06/19/2008	10/15/2008	04/01/2009	11/22/2017	11/22/2017	02/15/2018	02/16/2018	10/15/2008	11/20/2017	11/20/2017
			Field Sample ID	M061A4X	M061A5	M061A5X	M062A1	M062A2X	M062A3	M062A4	M062A4X	M062A5	M062A5X	M063A1X	M063A2	M063A2X
			SDG	CQ899	CQ977	CQ976	1097627	1115231	1138850	CQ900	CQ900	CQ977	CQ979	1115231	CQ897	CQ897
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	3.8	-	-	-	-	5.2	-	6.1	-	-	3.3	-
Arsenic	ug/L	Y	3	-	2.8	-	-	-	-	-	-	4.8	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	370	370	190	-	71	-	130	75	-	38
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	4750	-	-	-	-	27800	-	13400	-	-	10500	-
Iron	ug/L	Y	300	-	4100	-	-	-	-	-	-	12800	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0063	MW-0030	MW-0030	MW-0030	MW-0030	MW-0030	MW-0063	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065
			Sample Date	02/09/2018	08/25/2016	08/26/2016	08/26/2016	09/08/2017	09/08/2017	02/09/2018	10/29/2002	09/27/2004	09/28/2004	06/02/2005	06/03/2005	11/02/2005
			Field Sample ID	M063A3	M030E5	D0826161	M030E5X	M030E7	M030E7X	M063A3X	M065A1	M065A2	M065A2X	M065A3	M065A3X	M065A4
			SDG	CQ970	CS446	CS446	CS446	CS600	CS600	CQ970	LNA05	RFF26	RFF26	RFF58	RFF58	965984
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	8.42	8.42	8.15	8.15	-	-	4.59	-	3.05	-	3.84
DO	mg/L	N	NS	-	0.99	2.06	2.06	1.46	1.46	-	0	0.52	-	0.29	-	0
ORP	millivolts	N	NS	-	-73.98	67	67	-20	-20	-	0	-107	-	-142	-	-190
pH	pH Units	N	NS	-	6.51	6.57	6.57	6.34	6.34	-	-	6.71	-	7.40	-	7.72
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	699000	-	953000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	410U	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	398000	352000	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	1700U	1700U	-	1700U	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	398000	352000	-	509000	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	6.6	5.9J	-	-	2.8	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	6.3	5.1	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	-	0.5U	0.5U	-	0.5U	150	6	-	-	-	18	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	1910	6040	-	-	4850	-	-	-	10400	-	6370	-	9580
Iron	ug/L	Y	300	1700	3940	-	-	4140	-	-	-	7000	-	3250	-	5330
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40J	40U	-	40U	-	-	-	40U	-	400U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	1370000	1420000	-	851000	-	-	-	414000	-	64300	-
Sulfide	ug/L	N	NS	-	-	1000J	950J	-	4400	-	-	-	940J	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065
			Sample Date	11/03/2005	05/30/2006	05/31/2006	11/13/2006	11/14/2006	06/04/2007	06/05/2007	07/31/2008	08/01/2008	06/10/2009	06/10/2009	06/11/2009	06/21/2010
			Field Sample ID	M065A4X	M065A5	M065A5X	M065A6	M065A6X	M065A7	M065A7X	M065A8	M065A8X	M065A9	M065A9	M065A9X	M065B1-100621
			SDG	965984	991597	991597	1014239	1014239	1041205	1041205	1103488	1103488	1137656	1148815	1148815	RFS48
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	3.04	-	2.73	2.73	-	5.44
DO	mg/L	N	NS	-	-	-	-	-	-	-	0.15	-	0.4	0.4	-	11.94
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-181	-	-133	-133	-	-130
pH	pH Units	N	NS	-	-	-	-	-	-	-	7.02	-	7.24	7.24	-	7.01
Alkalinity to pH 4.5	ug/L	N	NS	940000	-	907000	-	798000	-	609000	-	831000	-	-	755000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.9J	-	5J	-	0.9J	-	2J	-	10	4J	-	3J	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	9450	-	7700	-	10800	-	10300	-	-	10600	-	12900
Iron	ug/L	Y	300	-	7620	-	5710	-	3310	-	8750	-	-	8760	-	10100
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	100	-	40U	-	40U	-	40U	-	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	349000	-	122000	-	146000	-	227000	-	53000	-	-	72700	-
Sulfide	ug/L	N	NS	530U	-	1300J	-	530U	-	530U	-	530U	-	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0065	MW-0070	MW-0070	MW-0070
			Sample Date	06/22/2010	07/28/2011	03/29/2012	03/28/2013	02/11/2014	11/21/2017	11/21/2017	02/12/2018	02/12/2018	06/26/2006	06/27/2006	12/11/2006
			Field Sample ID	M065B1X-100622	M065B2X	M065B3X	M065B4X	M065B5X	M065B8	M065B8X	M065B9	M065B9X	M070A1	M070A1X	M070A2
			SDG	RFS48	RFT48	RFU34	RFY40	CS061	CQ899	CQ899	CQ971	CQ971	995245	995245	1017858
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0	1.05	-0.17	5.82	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	9.54	10.96	10.9	0.42	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	0	-120	-101	-133	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	0.00	7.22	7.54	7.19	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	794000	-	-	-	-	-	-	-	-	-	266000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	-	-	-	-	-	-	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	1.1J	-	2.6	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	2.8	-	-	-	-
Benzene	ug/L	N	1	0.9J	1J	0.5U	0.5U	0.6J	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	4380	-	4490	-	5030J	-	2570J
Iron	ug/L	Y	300	-	-	-	-	-	-	-	3530	-	3010J	-	1200J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	-	-	-	-	-	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	11700	-	-	-	-	-	-	-	-	-	9100	-
Sulfide	ug/L	N	NS	530U	-	-	-	-	-	-	-	-	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070
			Sample Date	12/12/2006	06/04/2007	06/05/2007	08/21/2008	08/22/2008	06/10/2009	06/11/2009	06/21/2010	06/22/2010	07/28/2011	03/29/2012	04/19/2013
			Field Sample ID	M070A2X	M070A3	M070A3X	M070A4	M070A4X	M070A5	M070A5X	M070A6-100621	M070A6X-100622	M070A7X	M070A8X	M070A9X
			SDG	1017858	1041205	1041205	1106759	1106759	1148815	1148815	RFS48	RFS48	RFT48	RFU34	RFY97
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	5.32	-	4.71	-	4.42	0	-	-	4.68
DO	mg/L	N	NS	-	-	-	0	-	0.34	-	0	5.71	12.76	5.07	-
ORP	millivolts	N	NS	-	-	-	-107	-	-84	-	-80	0	-46	-	-
pH	pH Units	N	NS	-	-	-	6.78	-	6.69	-	6.34	0.00	6.66	-	-
Alkalinity to pH 4.5	ug/L	N	NS	258000	-	179000	-	268000	-	165000	-	218000	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	8260	-	4190	-	5320	-	3750	-	-	-	-
Iron	ug/L	Y	300	-	8730	-	2650	-	3530	-	2320	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	5200	-	21400	-	2500U	-	3300J	-	2900J	-	-	-
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0070	MW-0070	MW-0071	MW-0071	MW-0071	MW-0071	MW-0071	MW-0071	MW-0071	MW-0071	MW-0071	MW-0071	MW-0071
			Sample Date	08/29/2014	04/15/2015	06/14/2006	06/15/2006	12/12/2006	12/12/2006	06/14/2007	06/15/2007	08/13/2008	08/14/2008	07/08/2009	07/09/2009	07/01/2010
			Field Sample ID	M070B1X	M070B2X	M071A1	M071A1X	M071A2	M071A2X	M071A3	M071A3X	M071A4	M071A4X	M071A5	M071A5X	M071A6-100701
			SDG	CS149	CS220	993798	993798	1017858	1017858	1042931	1042931	1105517	1105517	1152857	1152857	RFS51
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.37	4.23	-	-	-	-	-	-	3.91	-	3.52	-	0.96
DO	mg/L	N	NS	-	4.85	-	-	-	-	-	-	0	-	0	-	4.24
ORP	millivolts	N	NS	-	-136	-	-	-	-	-	-	-175	-	-109	-	0
pH	pH Units	N	NS	-	6.83	-	-	-	-	-	-	6.51	-	6.38	-	0.00
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	300000	-	365000	-	191000	-	507000	-	506000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	10.2U	-	7.2U	-	9.8U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	13	-	96	-	27	-	41	-	23J	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	19300J	-	5930J	-	9810	-	7050	-	9400	-	8700
Iron	ug/L	Y	300	-	-	8960J	-	3750J	-	11000	-	6510	-	9060	-	8510
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	7500	-	7200	-	7500	-	5900	-	2500U	-
Sulfide	ug/L	N	NS	-	-	-	530U	-	1900J	-	830J	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0071	MW-0071	MW-0071	MW-0071	MW-0071	MW-0071R	MW-0071R	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032
			Sample Date	07/01/2010	06/29/2011	06/30/2011	04/23/2012	04/24/2012	09/02/2014	09/03/2014	04/08/1997	09/15/1997	09/11/1998	09/15/1998	02/22/1999
			Field Sample ID	M071A6X-100701	M071A7	M071A7X	M071A8	M071A8X	M071RA9	M071RA9X	MW-0032-A1	MW-0032-A2	M032A3X	M032A3Y	M032A4
			SDG	RFS51	RFT38	RFT38	RFU46	RFU46	CS150	CS150	E20285	E25691	E39319	E39480	90706
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.96	1.78	0	1.59	-	6.49	6.32	-	-	-	-	-
DO	mg/L	N	NS	4.24	3.94	3.52	3.41	3.35	0.3	-	-	-	-	-	-
ORP	millivolts	N	NS	0	-39	0	-	-	69	-	-	-	-	-	-
pH	pH Units	N	NS	0.00	6.71	0.00	-	-	6.02	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	535000	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	284000	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	700U	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	284000	-	-	-	-	-
Arsenic	ug/L	N	3	-	5.1U	-	5.1U	-	3.0	-	12	21.7	5.1	-	8.65
Arsenic	ug/L	Y	3	-	-	-	-	-	2.3	-	-	-	-	-	-
Benzene	ug/L	N	1	24J	-	20	-	32	-	53	1.3	0.8U	-	1.0U	1.0U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	8180	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	7770	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	-	-	40U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	2500U	-	-	-	-	-	55000	-	-	-	-	-
Sulfide	ug/L	N	NS	1800J	-	-	-	-	-	1300J	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032
			Sample Date	10/05/1999	02/02/2000	11/20/2000	03/29/2001	02/06/2002	03/21/2002	08/01/2002	08/07/2002	08/08/2002	12/03/2002	12/03/2002	04/08/2003	04/08/2003
			Field Sample ID	M032A5	M032A6	M032A7	M032A8	M032A9	M032B1	M032B2	M032B2TX	M032B2TY	M032B3X	M032B3Y	M032B4X	M032B4Y
			SDG	93965	00399	C2465	E88340	270891	HPA02	295476	296434	296626	RFE43	RFE43	RFE70	RFE70
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	1.11	1.11	2.55	2.55
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	67	67	-5	-5
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	569000	-	326000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410U	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	569000	-	326000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.18U	4.18U	-	5.0U	5.0U	-	11.0	12.0	-	4.9U	-	13	-
Arsenic	ug/L	Y	3	-	-	5.0U	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1.0U	1.0U	-	1.0U	1.00U	-	1.0U	-	2.0U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	1U	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	2610	-	15600	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	400U	-	-	-	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	3000U	-	6000U
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032
			Sample Date	06/11/2003	08/28/2003	10/04/2004	10/05/2004	06/08/2005	06/09/2005	11/02/2005	11/03/2005	05/30/2007	05/30/2007	05/31/2007	05/31/2007	11/28/2007
			Field Sample ID	M032B5	M032B6	M032B7	M032B7X	M032B8	M032B8X	M032B9	M032B9X	M032C3	M032C3	M032C3X	M032C3X	M032C4
			SDG	RFE76	RFE85	RFF27	RFF27	946781	946781	965984	965984	1014679	1040574	1014679	1040574	1067442
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	4.2	-	4.06	-	4.21	-	-	-	-	-	-
DO	mg/L	N	NS	1.32	-	0.35	-	0.72	-	0	-	-	-	-	-	-
ORP	millivolts	N	NS	-121	-	-125	-	-199	-	-280	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	6.78	-	7.16	-	7.44	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	345000	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	345000	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	5.2J	4.9J	4.7U	-	9.3U	-	12.7J	-	10U	10.0U	-	-	10.0U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	15600	13500	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	40U	-	40U	-	40U	-	40U	-	-	40U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	3000U	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032	MW-0032
			Sample Date	11/29/2007	06/30/2008	07/01/2008	10/13/2008	10/14/2008	06/30/2009	07/01/2009	11/16/2009	11/17/2009	05/10/2010	05/11/2010	10/05/2010
			Field Sample ID	M032C4X	M032C5	M032C5X	M032C6	M032C6X	M032C7	M032C7X	M032C8	M032C8X	M032C9-100510	M032C9X-100511	M032D1
			SDG	1067442	1098780	1098780	1114995	1114995	1151840	1151840	RFS20	RFS20	RFS42	RFS42	RFS69
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	3.93	-	4.13	-	3.85	-	3.8	-	4.04	4.42	3.76
DO	mg/L	N	NS	-	0.61	-	0	-	0	-	0.73	-	1.99	0.06	4.5
ORP	millivolts	N	NS	-	-156	-	-142	-	-159	-	-107	-	-168	-151	-131
pH	pH Units	N	NS	-	7.31	-	6.8	-	6.66	-	6.57	-	6.83	7.06	6.97
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	33.8	-	20.3	-	8.6J	-	20.7	-	10.8J	-	9.8U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	3U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0032	MW-0032	MW-0032	MW-0032	MW-0071R	MW-0071R	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072
			Sample Date	10/06/2010	05/31/2011	06/01/2011	11/09/2011	11/05/2015	11/06/2015	06/15/2005	11/18/2005	11/18/2005	12/07/2006	12/08/2006	06/11/2007	06/12/2007
			Field Sample ID	M032D1X	M032D2	M032D2X	M032D3	M071RB1	M071RB1X	M072A1	M072A2	M072A2X	M072A3	M072A3X	M072A4	M072A4X
			SDG	RFS69	RFT26	RFT26	RFT85	CS310	CS310	947746	968194	968194	1017481	1017481	1042260	1042260
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.79	3.69	3.83	3.82	-	5.98	-	4.81	4.81	-	-	-	-
DO	mg/L	N	NS	0	1.02	0	1.78	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-98	-141	-103	-117	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	6.67	6.84	6.7	6.71	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	184000	-	183000	-	166000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	96200	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	700U	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	96200	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.2J	-	5.7J	1.6J	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	1.3J	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	-	4	-	-	2J	-	5U	-	2J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	856	-	18200	17800	-	20700J	-	18000	-
Iron	ug/L	Y	300	-	-	-	-	599	-	15400	15700	-	22500J	-	17300	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	40U	-	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	322000	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	1500U	-	3000U	-	5000U
Sulfide	ug/L	N	NS	-	-	-	-	-	720J	-	-	530U	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072
			Sample Date	07/30/2008	07/31/2008	07/15/2009	07/16/2009	06/17/2010	06/18/2010	07/27/2011	07/28/2011	03/27/2012	03/28/2012	04/19/2013	04/19/2013
			Field Sample ID	M072A5	M072A5X	M072A6	M072A6X	M072A7-100617	M072A7X-100618	M072A8	M072A8X	M072A9	M072A9X	M072B1	M072B1X
			SDG	1103309	1103309	1153802	1153802	RFS47	RFS47	RFT48	RFT48	RFU32	RFU32	RFY97	RFY97
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.17	-	4.21	-	4.59	0	3.08	-	2.92	-	4.19	4.19
DO	mg/L	N	NS	0.67	-	1.64	-	11.23	4.04	6.21	4.51	4.33	4.32	1.47	1.47
ORP	millivolts	N	NS	-113	-	-50	-	-57	0	-	-	-60	-	-252	-252
pH	pH Units	N	NS	6.35	-	5.84	-	6.46	0.00	-	-	6.73	-	6.48	6.48
Alkalinity to pH 4.5	ug/L	N	NS	-	168000	-	174000	-	129000	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	99200
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	99200
Arsenic	ug/L	N	3	22.8	-	8.0J	-	13.3J	-	20.8	-	5.1U	-	2.8	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	2.4	-
Benzene	ug/L	N	1	-	0.9J	-	0.6J	-	0.5U	-	1J	-	0.9J	-	0.9J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	16800	-	13400	-	12800	-	-	-	-	-	31300	-
Iron	ug/L	Y	300	16900	-	12600	-	11400	-	-	-	-	-	31300	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	19000
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	-	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2500U	-	2500U	-	2500U	-	-	-	-	-	65100
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	-	-	-	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0072	MW-0072	MW-0072	MW-0072	MW-0034	MW-0034	MW-0034	MW-0034	MW-112	MW-112	MW-112	MW-112	MW-112
			Sample Date	08/28/2014	08/29/2014	04/16/2015	04/17/2015	04/08/1997	09/16/1997	09/14/1998	02/22/1999	10/23/2002	10/24/2002	02/26/2003	02/27/2003	09/04/2003
			Field Sample ID	M072B2	M072B2X	M072B3	M072B3X	MW-0034-A1	MW-0034-A2	M034A3	M034A4	M112A1Y	M112A1X	M112A2X	M112A2Y	M112A3
			SDG	CS149	CS149	CS222	CS222	E20285	E25691	E39389	90706	RFE34	RFE35	RFE65	RFE65	RFE85
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	10.43	4.34	-	3.98	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	0.33	-	-	7.89	-	-	-	-	1.18	-	6.02	-	-
ORP	millivolts	N	NS	57	-	-	-82	-	-	-	-	-101	-	-140	-	-
pH	pH Units	N	NS	6.18	-	-	6.59	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	333000	-	270000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	410U	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	163000	-	101000	-	-	-	-	-	333000	-	270000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	163000	-	101000	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	82.4	-	10.5	-	15.6	5U	5.0U	4.18U	4.9U	-	4.9U	-	4.9U
Arsenic	ug/L	Y	3	77.1	-	9.1	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.7J	-	0.5U	0.47U	0.8U	1.0U	1.0U	-	0.5U	-	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	31200	-	6920	-	-	-	-	-	2780	-	3600	-	4110
Iron	ug/L	Y	300	30300	-	6710	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	-	-	-	-	40U	-	40U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	10000U	-	6400	-	-	-	-	-	178000	-	106000	-
Sulfide	ug/L	N	NS	-	600U	-	680U	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112	MW-112
			Sample Date	09/23/2004	05/27/2005	10/27/2005	06/09/2006	11/09/2006	05/23/2007	08/19/2008	06/03/2009	04/29/2010	06/28/2011	03/22/2012	04/04/2013	09/04/2014
			Field Sample ID	M112A4	M112A5	M112A6X	M112A7	M112A8	M112A9	M112B1X	M112B2X	M112B3X	M112B4X	M112B5X	M112B6X	M112B7X
			SDG	RFF25	RFF56	965062	993031	1013690	1039652	1106131	1147599	RFS40	RFT37	RFU28	RFY53	CS151
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	0.53	3.88	-	4.06
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	3.32	3.46	-	1.3
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-11	85	-	-343
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	7.35	7.10	-	7.20
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	2J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	40U	40U	40U	40U	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-112	MW-112	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114
			Sample Date	09/03/2015	01/30/2018	10/17/2002	10/17/2002	02/10/2003	02/10/2003	09/10/2003	05/18/2004	09/22/2004	05/25/2005	10/26/2005	05/24/2006	11/09/2006
			Field Sample ID	M112B8X	M112C8X	M114A1X	M114A1Y	M114A2X	M114A2Y	M114A3	M114A4	M114A5	M114A6	M114A7X	M114A8	M114A9
			SDG	CS282	CS639	RFE33	RFE33	RFE64	RFE64	RFE86	RFF11	RFF25	RFF55	964862	990907	1013690
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.52	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	4.04	-	2	2	0.79	0.79	-	-	-	-	-	-	-
ORP	millivolts	N	NS	1084	-	59	59	272	272	-	-	-	-	-	-	-
pH	pH Units	N	NS	7.89	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	296000	-	-	267000	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	410U	-	-	410U	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	296000	-	-	267000	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	4.9U	4.9U	-	7.0J	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	5170	6000	-	8760	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	640	-	-	310	390	510	280	40U	40U	40U	44J
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	74000	-	-	66300	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114
			Sample Date	06/01/2007	07/29/2008	07/30/2008	05/08/2009	04/29/2010	07/20/2011	03/15/2012	03/16/2012	05/14/2012	05/15/2012	07/24/2012	07/25/2012	11/19/2012
			Field Sample ID	M114B1	M114B2	M114B2X	M114B3X	M114B4X	M114B5X	M114B6	M114B6X	M114B7	M114B7X	M114B8	M114B8X	M114B9
			SDG	1040795	1103086	1103086	1144089	RFS40	RFT45	RFU23	RFU23	RFU60	RFU62	RFV15	RFV16	RFX09
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	5.73	-	-	-	3.35	8.41	0.39	4.44	1.76	1.48	4.39	5.89
DO	mg/L	N	NS	-	0.61	-	-	-	11.09	10.95	6.37	-	6.26	11.86	6.41	6.26
ORP	millivolts	N	NS	-	41	-	-	-	12	94	162	84	190	119	139	153
pH	pH Units	N	NS	-	6.37	-	-	-	6.56	6.40	6.90	6.84	6.77	6.74	6.60	6.68
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.2U	-	-	-	-	5.1U	-	5.1U	-	6.8U	-	0.40U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	52.7J	-	710	-	89.0J	-	51.3J
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114	MW-114
			Sample Date	02/19/2013	06/10/2013	09/03/2013	11/04/2013	03/05/2014	05/19/2014	08/04/2014	10/22/2014	03/24/2015	05/27/2015	09/14/2015	11/13/2015	10/09/2017
			Field Sample ID	M114C1	M114C2	M114C3	M114C4	M114C5	M114C6	M114C7	M114C8	M114C9	M114D1	M114D2	M114D3	M114E2
			SDG	RFX66	RFZ90	CS004	CS038	CS069	CS100	CS135	CS174	CS212	CS242	CS283	CS314	CS613
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.47	5.62	5.78	6.58	6.14	5.61	5.44	6.41	5	-	6.69	5.72	5
DO	mg/L	N	NS	4.56	0.35	0.86	5.65	7.22	1.43	2.01	1.05	3.03	-	2.13	2.42	0.42
ORP	millivolts	N	NS	-93	-106	-148	-115	-43	-152	-459	134	99	-	267	33	147
pH	pH Units	N	NS	6.72	6.55	5.83	6.43	6.96	6.65	6.83	6.39	6.57	-	6.37	6.56	6.47
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	0.40U	0.42U	0.42U	0.78U	0.78U	0.78U	0.82U	0.82U	0.95U	0.82U	0.54U	0.81J	0.72U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	159J	382	43.0U	75.1J	120J	161J	82.2J	208	303	807	228	169J	228
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-114	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115
			Sample Date	01/23/2018	10/22/2002	10/22/2002	02/26/2003	02/26/2003	09/09/2003	07/30/2008	07/31/2008	11/05/2008	11/05/2008	11/06/2008	11/06/2008	05/08/2009
			Field Sample ID	M114F3	M115A1X	M115A1Y	M115A2X	M115A2Y	M115A3	M115A4	M115A4X	D1105081	M115A5	D1106081	M115A5X	M115A6X
			SDG	CS635	RFE34	RFE34	RFE65	RFE65	RFE86	1103309	1103309	1118813	1118813	1118813	1118813	1144089
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	FD	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.9	-	-	-	-	-	4.01	-	4.1	4.1	-	-	3.47
DO	mg/L	N	NS	0.72	0.7	0.7	-	-	-	3.87	-	1.3	1.3	-	-	5.84
ORP	millivolts	N	NS	203	-91	-91	-	-	-	35	-	60	60	-	-	133
pH	pH Units	N	NS	6.91	-	-	-	-	-	6.74	-	6.70	6.70	-	-	5.92
Alkalinity to pH 4.5	ug/L	N	NS	-	-	80300	-	142000	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	410U	-	410U	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	80300	-	142000	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	0.72U	4.9U	-	4.9U	-	4.9U	10.2U	-	10.0U	10.0U	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	-	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	218	553	-	40J	-	173J	1090	-	52.2U	52.2U	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	1050	-	42J	40U	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	72000	-	219000	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115
			Sample Date	11/06/2009	04/29/2010	07/20/2011	03/15/2012	03/16/2012	05/14/2012	05/15/2012	07/24/2012	07/25/2012	11/19/2012	02/19/2013	06/12/2013	09/03/2013
			Field Sample ID	M115A7X	M115A8X	M115A9X	M115B1	M115B1X	M115B2	M115B2X	M115B3	M115B3X	M115B4	M115B5	M115B6	M115B7
			SDG	1170013	RFS40	RFT45	RFU23	RFU23	RFU60	RFU62	RFV15	RFV16	RFX09	RFX66	RFB02	CS004
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	5.6	4.92	48.18	0.59	2.7	2.41	2.17	4.35	7.17	4.17	3.6	4.15
DO	mg/L	N	NS	-	3.87	4.26	4.21	4.16	4.14	4.13	4.2	4.26	4.24	7.1	6.2	5.12
ORP	millivolts	N	NS	-	172	127	149	169	188	190	204	52	96	-91	-72	-32
pH	pH Units	N	NS	-	7.03	6.63	6.87	6.78	6.70	6.79	6.61	6.53	6.75	6.64	6.64	5.79
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	5.1U	-	5.1U	-	6.8U	-	0.40U	0.40U	0.40U	0.42U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	314	-	32.2J	-	182J	-	33.3U	110J	44.5J	43.0U
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-115	MW-0034	MW-0034
			Sample Date	11/04/2013	03/05/2014	05/19/2014	08/04/2014	10/22/2014	03/02/2015	05/27/2015	09/14/2015	11/13/2015	10/09/2017	01/23/2018	11/18/2009	05/25/2010
			Field Sample ID	M115B8	M115B9	M115C1	M115C2	M115C3	M115C4	M115C5	M115C6	M115C7	M115D6	M115D7	M034D1X	M034D2-100525
			SDG	CS038	CS069	CS100	CS135	CS174	CS204	CS242	CS283	CS314	CS613	CS635	RFS20	RFS44
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.61	4.15	4.08	4.11	4.19	4.23	-	4.51	4.25	4.25	4.12	-	7.93
DO	mg/L	N	NS	1.09	9.61	6.2	5.55	0.02	7.63	-	3.88	6.08	0.3	7.39	-	1.92
ORP	millivolts	N	NS	-273	87	0	-218	140	105	-	321	64	151	170	-	-249
pH	pH Units	N	NS	6.30	7.28	7.24	7.35	6.43	7.62	-	6.04	7.23	6.55	7.65	-	7.25
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	225000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	0.78U	0.78U	0.78U	0.82U	0.82U	0.82U	0.82U	0.54U	1.2J	0.72U	7.0	-	7.2U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	43.0U	43.0U	103J	101J	625	287	2040	180J	466	823	13200	-	52.2U
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	52.2U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	810	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	1190000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034
			Sample Date	05/26/2010	10/05/2010	10/06/2010	05/25/2011	05/26/2011	11/09/2011	11/10/2011	02/15/2012	02/16/2012	08/06/2012	08/07/2012	03/11/2013
			Field Sample ID	M034D2X-100526	M034D3	M034D3X	M034D4	M034D4X	M034D5	M034D5X	M034D6	M034D6X	M034D7	M034D7X	M034D8
			SDG	RFS44	RFS69	RFS69	RFT25	RFT25	RFT85	RFT85	RFU11	RFU11	RFV25	RFV25	RFX98
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.73	-	-	8.08	8.04	7.67	7.18	8.3	8.31	7.91	8.11	6.85
DO	mg/L	N	NS	0	-	-	1.61	0	3.99	5.42	-0.04	3.17	6.48	4.31	6.93
ORP	millivolts	N	NS	-356	-	-	-102	-327	-136	-41	-182	-143	-168	-355	-294
pH	pH Units	N	NS	7.11	-	-	6.71	6.88	6.91	6.61	7.37	7	10.87	7.21	6.95
Alkalinity to pH 4.5	ug/L	N	NS	438000	-	314000	-	547000	-	164000	-	284000	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	700U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	453000	-
Arsenic	ug/L	N	3	-	9.8U	-	9.8U	-	5.1U	-	5.1U	-	1.3J	-	1.0J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	0.86J
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	366	-	55.3J	-	44.6J	-	30.7J	-	33.3U	-	74.8J
Iron	ug/L	Y	300	-	128J	-	52.2U	-	14.1U	-	32.0J	-	33.3U	-	33.3U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	200U	-	40U	-	40U	-	550	-	40U	-	190	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	817000	-	1150000	-	442000	-	1050000	-	1140000	-	1270000	-
Sulfide	ug/L	N	NS	3400	-	2400	-	11100	-	1100J	-	8300	-	8600	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034
			Sample Date	03/11/2013	09/24/2013	09/25/2013	06/23/2014	06/24/2014	11/06/2014	11/07/2014	02/18/2015	02/19/2015	09/30/2015	10/01/2015	02/02/2016	02/15/2016
			Field Sample ID	M034D8X	M034D9	M034D9X	M034E1	M034E1X	M034E2	M034E2X	M034E3	M034E3X	M034E4	M034E4X	M034HS	M034E5
			SDG	RFX98	CS015	CS015	CS116	CS116	CS183	CS183	CS202	CS202	CS293	CS293	CS349	CS357
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	SP	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.85	8.1	-	-	7.94	-	7.11	7.69	7.66	7.49	6.77	-	-
DO	mg/L	N	NS	6.93	0.4	-	1.45	0.07	5.04	0.18	5.42	1.17	5.88	6.22	-	6.538
ORP	millivolts	N	NS	-294	-283	-	-10.5	-226	73	72	-50	-243	-39	-37	-	-314
pH	pH Units	N	NS	6.95	6.91	-	6.87	6.96	6.46	6.59	6.53	7.1	6.23	6.4	-	7.21
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	223000	-	332000	-	259000	-	186000	-	133000	-	156000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	700U	-	700U	-	-	-	700U	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	223000	-	332000	-	259000	-	186000	-	133000	-	156000	-	-
Arsenic	ug/L	N	3	-	1.9J	-	1.1J	-	1.1J	-	0.87J	-	1.9J	-	-	5.4U
Arsenic	ug/L	Y	3	-	1.4J	-	1.2J	-	1.0J	-	0.82U	-	2.1	-	-	5.4U
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	3	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	87.5J	-	33.4U	-	33.4U	-	33.4U	-	65.0J	-	-	33.3U
Iron	ug/L	Y	300	-	43.0U	-	33.4U	-	33.4U	-	33.4U	-	33.3U	-	-	33.3U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	530	-	210	-	230	-	190	-	720	-	690	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1280000	-	1660000	-	1180000	-	1680000	-	1340000	-	2500U	-	-
Sulfide	ug/L	N	NS	2000J	-	9400	-	4000	-	600U	-	2000J	-	1100J	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0034	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070
			Sample Date	02/16/2016	08/16/2016	08/17/2016	03/23/2017	03/24/2017	09/05/2017	09/06/2017	06/26/2006	06/27/2006	12/11/2006	12/12/2006	06/04/2007	06/05/2007
			Field Sample ID	M034E5X	M034E6	M034E6X	M034E7	M034E7X	M034E8	M034E8X	M070A1	M070A1X	M070A2	M070A2X	M070A3	M070A3X
			SDG	CS357	CS441	CS441	CS531	CS531	CS599	CS599	995245	995245	1017858	1017858	1041205	1041205
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.22	-	7.96	8.6	8.57	7.81	7.98	-	-	-	-	-	-
DO	mg/L	N	NS	2.7	1.95	4.58	3.39	11.11	0.24	0.88	-	-	-	-	-	-
ORP	millivolts	N	NS	-283	-98.33	-20	-348	-169	-318	-259	-	-	-	-	-	-
pH	pH Units	N	NS	7.02	6.79	6.58	7.25	6.76	7.02	6.89	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	266000	-	258000	-	179000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	290000	-	915000	-	366000	-	321000	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	1700U	-	1700U	-	1700U	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	290000	-	915000	-	366000	-	321000	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	1.9J	-	3.4	-	1.1J	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	1.5J	-	2.7	-	1.1J	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	74.7U	-	74.7U	-	80.5U	-	5030J	-	2570J	-	8260	-
Iron	ug/L	Y	300	-	74.7U	-	74.7U	-	80.5U	-	3010J	-	1200J	-	8730	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	50J	-	83J	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1260000	-	1500000	-	1260000	-	1020000	-	9100	-	5200	-	21400
Sulfide	ug/L	N	NS	5900	-	20300	-	10400	-	9500	-	530U	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070	MW-0070
			Sample Date	08/21/2008	08/22/2008	06/10/2009	06/11/2009	06/21/2010	06/22/2010	07/28/2011	03/29/2012	04/19/2013	08/29/2014	04/15/2015	06/01/2016
			Field Sample ID	M070A4	M070A4X	M070A5	M070A5X	M070A6-100621	M070A6X-100622	M070A7X	M070A8X	M070A9X	M070B1X	M070B2X	M070B3
			SDG	1106759	1106759	1148815	1148815	RFS48	RFS48	RFT48	RFU34	RFY97	CS149	CS220	CS408
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.32	-	4.71	-	4.03	5.71	5.01	5.07	4.68	5.37	4.23	7.55
DO	mg/L	N	NS	0	-	0.34	-	5.22	0	3.54	-	-	-	4.85	-
ORP	millivolts	N	NS	-107	-	-84	-	-80	0	-46	-	-	-	-136	-
pH	pH Units	N	NS	6.78	-	6.69	-	6.34	0	6.66	-	-	-	6.83	-
Alkalinity to pH 4.5	ug/L	N	NS	-	268000	-	165000	-	218000	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	4190	-	5320	-	3750	-	-	-	-	-	-	-
Iron	ug/L	Y	300	2650	-	3530	-	2320	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2500U	-	3300J	-	2900J	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0070	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072
			Sample Date	05/10/2017	06/15/2005	11/18/2005	11/18/2005	12/07/2006	12/08/2006	06/11/2007	06/12/2007	07/30/2008	07/31/2008	07/15/2009	07/16/2009	06/17/2010
			Field Sample ID	M070B4X	M072A1	M072A2	M072A2X	M072A3	M072A3X	M072A4	M072A4X	M072A5	M072A5X	M072A6	M072A6X	M072A7-100617
			SDG	CS557	947746	968194	968194	1017481	1017481	1042260	1042260	1103309	1103309	1153802	1153802	RFS47
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.28	-	4.81	4.81	-	-	-	-	3.17	-	4.21	-	4.01
DO	mg/L	N	NS	0.28	-	-	-	-	-	-	-	0.67	-	1.64	-	5.52
ORP	millivolts	N	NS	-22	-	-	-	-	-	-	-	-113	-	-50	-	-57
pH	pH Units	N	NS	6.76	-	-	-	-	-	-	-	6.35	-	5.84	-	6.46
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	184000	-	183000	-	166000	-	168000	-	174000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	22.8	-	8.0J	-	13.3J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	-	2J	-	5U	-	2J	-	0.9J	-	0.6J	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	18200	17800	-	20700J	-	18000	-	16800	-	13400	-	12800
Iron	ug/L	Y	300	-	15400	15700	-	22500J	-	17300	-	16900	-	12600	-	11400
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	1500U	-	3000U	-	5000U	-	2500U	-	2500U	-
Sulfide	ug/L	N	NS	-	-	-	530U	-	530U	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072	MW-0072
			Sample Date	06/18/2010	07/27/2011	07/28/2011	03/27/2012	03/28/2012	04/19/2013	04/19/2013	08/28/2014	08/29/2014	04/16/2015	04/17/2015	06/07/2016
			Field Sample ID	M072A7X-100618	M072A8	M072A8X	M072A9	M072A9X	M072B1	M072B1X	M072B2	M072B2X	M072B3	M072B3X	M072B4
			SDG	RFS47	RFT48	RFT48	RFU32	RFU32	RFY97	RFY97	CS149	CS149	CS222	CS222	CS412
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.04	4.46	4.51	4.3	4.32	4.19	4.19	10.43	4.34	-	3.98	-
DO	mg/L	N	NS	0	-	-	-0.33	-	1.47	1.47	0.33	-	-	7.89	-
ORP	millivolts	N	NS	0	-	-	-60	-	-252	-252	57	-	-	-82	-
pH	pH Units	N	NS	0	-	-	6.73	-	6.48	6.48	6.18	-	-	6.59	-
Alkalinity to pH 4.5	ug/L	N	NS	129000	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	99200	-	163000	-	101000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	99200	-	163000	-	101000	-
Arsenic	ug/L	N	3	-	20.8	-	5.1U	-	2.8	-	82.4	-	10.5	-	28.9
Arsenic	ug/L	Y	3	-	-	-	-	-	2.4	-	77.1	-	9.1	-	27.0
Benzene	ug/L	N	1	0.5U	-	1J	-	0.9J	-	0.9J	-	0.7J	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	31300	-	31200	-	6920	-	10000
Iron	ug/L	Y	300	-	-	-	-	-	31300	-	30300	-	6710	-	9880
Methane	ug/L	N	NS	-	-	-	-	-	-	19000	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	-	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	2500U	-	-	-	-	-	65100	-	10000U	-	6400	-
Sulfide	ug/L	N	NS	530U	-	-	-	-	-	600U	-	600U	-	680U	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-0072	MW-0072	MW-0072	MW-121R	MW-121R	MW-121R	MW-121R	MW-121R	MW-121R	MW-121R	MW-121R	MW-128	MW-128
			Sample Date	06/08/2016	05/15/2017	05/16/2017	04/27/2017	04/27/2017	04/27/2017	08/31/2017	08/31/2017	11/30/2017	11/30/2017	03/06/2018	10/17/2002	10/17/2002
			Field Sample ID	M072B4X	M072B5	M072B5X	D0427178	M121RC1	M121RC1X	M121RC2	M121RC2X	M121RC3	M121RC3X	M121RC4X	M128A1X	M128A1X
			SDG	CS412	CS560	CS560	CQ610	CQ610	CQ610	CQ751	CQ751	CQ910	CQ910	CQ994	RFE32	RFE33
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.95	-	3.94	4.58	4.58	4.58	5.62	5.62	5.1	5.1	-	-	-
DO	mg/L	N	NS	-	-	3.4	7.73	7.73	7.73	2.77	2.77	1.86	1.86	-	1.58	1.58
ORP	millivolts	N	NS	-	-	-58	-81.1	-81.1	-81.1	-93.7	-93.7	-69.4	-69.4	-	-28	-28
pH	pH Units	N	NS	-	-	7.22	6.65	6.65	6.65	6.8	6.8	7.1	7.1	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	237000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	189000	-	-	-	-	-	-	-	-	-	-	-	237000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	1700U	-	1700U	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	189000	-	186000	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.2	-	23	24.3	-	22.1	-	19.6	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	22.1	21.4	-	20.6	-	18.1	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	2	-	3	-	3	-	3J	10U	-	0.7J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	7370	-	22300	22200	-	52100	-	28200	-	-	-	-
Iron	ug/L	Y	300	-	6910	-	21000	20700	-	54500	-	25400	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	-	-	-	-	-	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	2500U	-	2500U	-	-	-	-	-	-	-	-	-	3000U
Sulfide	ug/L	N	NS	700U	-	700U	-	-	-	-	-	-	-	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128
			Sample Date	10/17/2002	01/30/2003	01/30/2003	09/18/2003	09/28/2004	09/29/2004	06/01/2005	11/10/2005	11/11/2005	06/14/2006	06/15/2006	11/09/2006	11/09/2006
			Field Sample ID	M128A1Y	M128A2X	M128A2Y	M128A3	M128A4	M128A4X	M128A5	M128A6	M128A6X	M128A7	M128A7X	M128A8	M128A8X
			SDG	RFE33	RFE62	RFE62	RFE86	RFF26	RFF26	RFF57	967213	967213	993798	993798	1013690	1013690
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	8.22	-	8.66	-	-	-	-	-	-
DO	mg/L	N	NS	1.58	1.51	1.51	-	0.32	-	0.2	-	-	-	-	-	-
ORP	millivolts	N	NS	-28	33	33	-	-153	-	-74	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	6.75	-	6.76	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	107000	-	-	78000	58500	-	76400	-	57500	-	68800
Alkalinity to pH 8.3	ug/L	N	NS	-	-	410U	-	-	410U	410U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	107000	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	4.9U	-	4.9U	4.7U	-	9.3U	9.3U	-	10U	-	10U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	-	0.5U	0.5U	-	73	6	-	0.9J	-	3J	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	7440	2600	-	11100	25800	-	11500	10400	-	13400J	-	11100J	-
Iron	ug/L	Y	300	-	-	-	-	24400	-	7770	9830	-	13300J	-	10500J	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	40U	-	40U	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	1500U	-	-	6000U	3500J	-	3000U	-	3900J	-	1800J
Sulfide	ug/L	N	NS	-	-	-	-	-	530U	530U	-	600J	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128
			Sample Date	06/11/2007	06/12/2007	08/19/2008	08/20/2008	06/10/2009	06/11/2009	06/14/2010	06/15/2010	08/02/2011	03/28/2012	03/21/2013	03/21/2013
			Field Sample ID	M128A9	M128A9X	M128B1	M128B1X	M128B2	M128B2X	M128B3-100614	M128B3X-100615	M128B4X	M128B5X	D0321131	M128B6X
			SDG	1042260	1042260	1106372	1106372	1148815	1148815	RFS47	RFS47	RFT49	RFU32	RFY20	RFY20
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	7.75	-	7.1	-	7.29	7.43	7.72	9.23	7.53	7.53
DO	mg/L	N	NS	-	-	0	-	0.96	-	3.37	1.22	-	-	-	-
ORP	millivolts	N	NS	-	-	-149	-	-106	-	-114	122	-	-	-	-
pH	pH Units	N	NS	-	-	6.87	-	6.89	-	6.81	6.99	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	56400	-	78700	-	106000	-	115000	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.0U	-	10.2U	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	25700	-	13800	-	15500	-	9240	-	-	-	-	-
Iron	ug/L	Y	300	22600	-	13400	-	11700	-	6040	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	5000U	-	5000U	-	5000U	-	10000U	-	-	-	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	530U	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-133	MW-133	MW-116	MW-116	MW-116
			Sample Date	09/09/2014	04/17/2015	12/03/2015	12/03/2015	06/09/2016	07/19/2016	07/20/2016	05/16/2017	10/17/2002	10/17/2002	06/01/2006	06/01/2006	12/04/2006
			Field Sample ID	M128B7X	M128B8X	M128B9	M128B9X	M128C1X	M128C2	M128C2X	M128C3	M133A1X	M133A1X	M116A1	M116A1X	M116A2
			SDG	CS153	CS222	CP942	CP942	CS413	CQ184	CQ190	CS560	RFE32	RFE33	991777	991777	1016740
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.34	7.75	8.69	8.69	7.58	-	7.95	7.65	-	-	-	-	-
DO	mg/L	N	NS	-	5.87	1.7	1.7	-	-	0.76	-	1.77	1.77	-	-	-
ORP	millivolts	N	NS	-	-95	-95.8	-95.8	-	-	-74.3	-	-35	-35	-	-	-
pH	pH Units	N	NS	-	6.56	6.93	6.93	-	-	6.6	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	256000	-	292000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	410U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	256000	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	3.8	-	-	6.3J-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	3.9	-	-	5.3J-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	2J	-	230	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	9340	-	-	11400J-	-	-	-	-	5300	-	10900
Iron	ug/L	Y	300	-	-	9000	-	-	10300J-	-	-	-	-	2340	-	2560
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	2700J	-	-	1500U	-	-	51000	-	39700	-
Sulfide	ug/L	N	NS	-	-	-	680U	-	-	-	-	530U	-	-	600J	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-116	MW-116	MW-116	MW-116	MW-116	MW-116R	MW-116R	MW-116R	MW-116R	MW-116R	MW-116R	MW-116R	MW-116R
			Sample Date	12/05/2006	05/31/2007	06/01/2007	12/18/2007	12/19/2007	06/25/2008	06/26/2008	11/05/2008	11/06/2008	07/23/2009	07/24/2009	11/11/2009	11/12/2009
			Field Sample ID	M116A2X	M116A3	M116A3X	M116A4	M116A4X	M116RA5	M116RA5X	M116RA6	M116RA6X	M116RA7	M116RA7X	M116RA8	M116RA8X
			SDG	1016740	1040795	1040795	1070579	1070579	1098093	1098093	1118813	1118813	1154932	1154932	1170880	1170880
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	5.85	-	5.69	-	5.78	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	0	-	2.19	-	1	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-144	-	-64	-	-117	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	6.79	-	6.57	-	6.48	-
Alkalinity to pH 4.5	ug/L	N	NS	332000	-	245000	-	368000	-	303000	-	334000	-	299000	-	347000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	120	-	200	-	94	-	39	-	59	-	27	-	38
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	2750	-	4990	-	1060	-	2600	-	2820	-	2840	-
Iron	ug/L	Y	300	-	1550	-	4150	-	905	-	1770	-	878	-	2090	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	500	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	16800	-	3900J	-	43600	-	8100	-	7000	-	9200	-	3800J
Sulfide	ug/L	N	NS	620J	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-116R	MW-116R	MW-116R	MW-116R	MW-116R	MW-116R	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117
			Sample Date	05/20/2010	05/21/2010	10/07/2010	10/08/2010	06/16/2011	04/24/2012	11/21/2002	11/22/2002	02/27/2003	02/27/2003	09/12/2003	03/02/2004
			Field Sample ID	M116RA9-100520	M116RA9X-100521	M116RB1	M116RB1X	M116RB2X	M116RB3X	M117A1Y	M117A1X	M117A2X	M117A2Y	M117A3	M117A4A
			SDG	RFS43	RFS43	RFS72	RFS72	RFT33	RFU46	RFE40	RFE40	RFE65	RFE65	RFE86	RFE98
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.82	0	1.85	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	5.11	5.18	4.61	-	6.27	5.04	0.84	-	0.36	0.36	-	-
ORP	millivolts	N	NS	-156	0	-61	-	-78	-	-95	-	-101	-101	-	-
pH	pH Units	N	NS	6.72	0.00	6.88	-	6.81	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	363000	-	285000	-	-	-	2140000	-	1870000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	-	-	410U	-	410U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	2140000	-	1870000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	9.2J	-	18	-	5.2J	21.3
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	93	-	28	63	32	-	1900	-	1100	850	730
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	2180	-	3360	-	-	-	20500	-	4700	-	16000	4410
Iron	ug/L	Y	300	1800	-	1870	-	-	-	-	-	-	-	-	1810
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	400U	-	-	-	400U	-	40U	1000U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2500U	-	24600	-	-	-	4000J	-	3000J	-	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-117	MW-117	MW-117	MW-117	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133
			Sample Date	03/02/2004	10/05/2004	10/06/2004	06/07/2005	10/17/2002	10/06/2004	10/07/2004	06/01/2005	11/14/2005	11/15/2005	06/15/2006	06/15/2006	11/21/2006
			Field Sample ID	M117A4A	M117A5	M117A5X	M117A6	M133A1Y	M133A2	M133A2X	M133A3	M133A4	M133A4X	M133A5	M133A5X	M133A6
			SDG	RFE99	RFF28	RFF28	946780	RFE33	RFF28	RFF28	RFF57	967531	967531	993798	993798	1015254
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	3.35	-	-	-	4.92	4.3	-	-	-	-
DO	mg/L	N	NS	-	-	-	0.9	1.77	0.1	-	0.07	0	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-146	-35	-194	-	-160	-162	-	-	-	-
pH	pH Units	N	NS	-	-	-	6.99	-	6.67	-	7.08	6.78	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	288000	271000	-	248000	-	292000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	410U	410U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.4J	-	9.3U	7.1J	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	-	1600	-	-	-	0.5U	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	18300	20100J	-	23900	10100	-	17500J	-	17800J
Iron	ug/L	Y	300	25300	-	-	-	-	18200J	-	23600	9270	-	12300J	-	17800J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	400U	-	-	-	40U	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	1500U	1500U	-	1500U	-	2100J	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	530U	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133
			Sample Date	11/21/2006	06/11/2007	06/12/2007	12/11/2007	12/12/2007	08/14/2008	08/15/2008	07/07/2009	07/08/2009	07/09/2010	07/09/2010	08/03/2011	08/04/2011
			Field Sample ID	M133A6X	M133A7	M133A7X	M133A8	M133A8X	M133A9	M133A9X	M133B1	M133B1X	M133B2	M133B2X	M133B3	M133B3X
			SDG	1015254	1042260	1042260	1069481	1069481	1105739	1105739	1152663	1152663	RFS54	RFS54	RFT50	RFT50
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	4.01	-	3.39	-	4.2	4.2	3.89	4.03
DO	mg/L	N	NS	-	-	-	-	-	9.71	-	0	-	0	0	1.95	-
ORP	millivolts	N	NS	-	-	-	-	-	165	-	-132	-	0	0	-113	-
pH	pH Units	N	NS	-	-	-	-	-	4.53	-	6.8	-	0	0	7.27	-
Alkalinity to pH 4.5	ug/L	N	NS	272000	-	314000	-	331000	-	341000	-	327000	-	358000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	13.5J	-	15.8J	-	16.5J	-	17.9J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	26000	-	16900	-	20800	-	20300	-	17800	-	-	-
Iron	ug/L	Y	300	-	27700	-	10700	-	20400	-	18700	-	16100	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	6000U	-	5000U	-	13800	-	9400J	-	5000U	-	10000U	-	-
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-154
			Sample Date	04/23/2012	04/24/2012	04/03/2013	04/04/2013	09/09/2014	09/10/2014	04/16/2015	04/17/2015	06/08/2016	06/09/2016	05/09/2017	05/10/2017	10/17/2002
			Field Sample ID	M133B4	M133B4X	M133B5	M133B5X	M133B6	M133B6X	M133B7	M133B7X	M133B8	M133B8X	M133B9	M133B9X	M154A1X
			SDG	RFU46	RFU46	RFY53	RFY53	CS155	CS155	CS222	CS222	CS413	CS413	CS557	CS557	RFE32
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.63	3.75	8.95	4.72	10.13	4.54	-	4.42	-	3.93	-	3.76	-
DO	mg/L	N	NS	-	-	0.47	-	0.05	-	-	4.09	-	-	-	-	1.4
ORP	millivolts	N	NS	-	-	-171	-	26	-	-	-120	-	-	-	-	25
pH	pH Units	N	NS	-	-	7.08	-	7.33	-	-	6.72	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	286000	-	246000	-	223000	-	292000	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	700U	-	700U	-	1700U	-	1700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	286000	-	246000	-	223000	-	292000	-	307000	-
Arsenic	ug/L	N	3	8.0J	-	8.3	-	14.1	-	6.4	-	9.9	-	7.9	-	-
Arsenic	ug/L	Y	3	-	-	7.8	-	15.4	-	6.0	-	9.7	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	25600	-	22300	-	19500	-	20300	-	19100	-	-
Iron	ug/L	Y	300	-	-	24300	-	22000	-	18500	-	19700	-	17800	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	5000U	-	11300	-	9800J	-	10000U	-	2500U	-
Sulfide	ug/L	N	NS	-	-	-	600U	-	600U	-	680U	-	700U	-	700U	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-154	MW-154	MW-154	MW-154	MW-154	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117
			Sample Date	10/17/2002	10/17/2002	01/30/2003	01/31/2003	09/11/2003	06/08/2005	11/07/2005	11/08/2005	05/31/2006	06/01/2006	11/20/2006	11/21/2006	06/06/2007
			Field Sample ID	M154A1X	M154A1Y	M154A2Y	M154A2X	M154A3	M117A6X	M117A7	M117A7X	M117A8	M117A8X	M117A9	M117A9X	M117B1
			SDG	RFE33	RFE33	RFE62	RFE62	RFE86	946780	966572	966572	991777	991777	1015254	1015254	1041628
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	1.4	1.4	2.41	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	25	25	34	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	378000	-	381000	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	410U	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	378000	-	381000	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	-	8.4J	-	7.2J	-	9.3U	-	11.0J	-	10U	-	10.0U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	0.5U	700	-	1300	-	1700	-	1700	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	17100	-	65100	-	93300	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	40U	400U	-	400U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	6000U	-	13200	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117	MW-117
			Sample Date	06/07/2007	08/08/2008	08/08/2008	05/12/2009	05/13/2009	06/07/2011	06/08/2011	03/06/2012	03/07/2012	03/26/2013	03/26/2013	03/26/2013	03/27/2013
			Field Sample ID	M117B1X	M117B2	M117B2X	M117B3	M117B3X	M117B4	M117B4X	M117B5	M117B5X	D0326131	D0327131	M117B6	M117B6X
			SDG	1041628	1104631	1104631	1144692	1144692	RFT30	RFT30	RFU15	RFU15	RFY36	RFY36	RFY36	RFY36
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	FD	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	3.06	3.06	2.98	-	1.65	0.92	-0.14	0.48	10.73	10.73	10.73	4.32
DO	mg/L	N	NS	-	0.41	0.41	0	-	12.48	3.36	8.62	3.66	0.76	0.76	0.76	-
ORP	millivolts	N	NS	-	-210	-210	-152	-	-81	-198	-93	-110	-247	-247	-247	-
pH	pH Units	N	NS	-	6.92	6.92	6.52	-	6.93	7.17	7.03	7.20	7.26	7.26	7.26	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	1180000	-	1020000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	1180000	-	1020000
Arsenic	ug/L	N	3	-	10.2U	-	10.0U	-	10.6J	-	5.1U	-	1.7J	-	1.7J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	1.5J	-	1.3J	-
Benzene	ug/L	N	1	840	-	1200	-	560	-	2100	-	1600	-	1800	-	1900
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	6790	-	7270	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	5700	-	5750	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	400U	-	550J
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	92700	-	45100
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	600U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-117	MW-117	MW-117	MW-117	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118
			Sample Date	05/27/2014	05/28/2014	08/06/2015	08/07/2015	11/21/2002	11/22/2002	03/27/2003	03/28/2003	09/17/2003	03/11/2004	10/05/2004	10/06/2004	06/07/2005
			Field Sample ID	M117B7	M117B7X	M117B8	M117B8X	M118A1X	M118A1Y	M118A2Y	M118A2X	M118A3	M118A4	M118A5	M118A5X	M118A6
			SDG	CS105	CS105	CS270	CS270	RFE40	RFE40	RFE68	RFE68	RFE86	RFE99	RFF28	RFF28	946780
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	12.72	4.07	-	3.94	-	-	-	-	-	-	4.19	-	4.27
DO	mg/L	N	NS	1.38	-	-	1.72	-	0.76	1.5	-	-	-	0.9	-	2.48
ORP	millivolts	N	NS	-305	-	-	-17	-	-80	-82	-	-	-	-124	-	-149
pH	pH Units	N	NS	7.01	-	-	6.83	-	-	-	-	-	-	6.51	-	6.86
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	676000	-	568000	-	629000	-	617000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	410U	-	410U	-	410U	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	1560000	-	1610000	-	676000	-	568000	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	1560000	-	1610000	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	2.5	-	3.0	-	9.8J	-	14	-	15.9	4.9U	11.5J	-	9.3U
Arsenic	ug/L	Y	3	2.5	-	3.1	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	2200	-	1900J	-	15	-	15	61	21	-	4J	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	2570	-	5130	-	46900	-	24200	-	47700	25800	28900J+	-	31500
Iron	ug/L	Y	300	118J	-	3940	-	-	-	-	-	-	-	27700J+	-	33100
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	800U	-	40U	-	40U	-	40U	40U	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	3700J	-	5000U	-	1500U	-	3000U	-	7500U	-	6000U	-
Sulfide	ug/L	N	NS	-	600U	-	680U	-	-	-	-	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118
			Sample Date	06/08/2005	11/14/2005	11/15/2005	05/31/2006	06/01/2006	11/20/2006	11/21/2006	06/06/2007	06/07/2007	08/07/2008	08/08/2008	07/09/2009	07/10/2009
			Field Sample ID	M118A6X	M118A7	M118A7X	M118A8	M118A8X	M118A9	M118A9X	M118B1	M118B1X	M118B2	M118B2X	M118B3	M118B3X
			SDG	946780	967531	967531	991777	991777	1015254	1015254	1041628	1041628	1104631	1104631	1153027	1153027
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	4.43	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	0.1	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-203	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	7.45	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	605000	-	724000	-	599000	-	602000	-	598000	-	601000	-	621000
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	11.2J	-	10.3J	-	10U	-	10.0U	-	19.0J	-	10.6J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	23	-	5J	-	42	-	3U	-	22	-	4J	-	23
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	32000	-	29100	-	42300J	-	37500	-	23300	-	20200	-
Iron	ug/L	Y	300	-	32600	-	28200	-	45900J	-	38500	-	15700	-	19600	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	400U	-	40U	-	40U	-	40U	-	40U	-	400U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	4300J	-	6000U	-	6000U	-	6000U	-	5000U	-	5000U	-	10000U
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118	MW-118
			Sample Date	06/30/2010	07/01/2010	06/29/2011	06/30/2011	02/20/2012	02/21/2012	08/12/2013	08/13/2013	09/30/2013	10/01/2013	08/26/2014	08/27/2014
			Field Sample ID	M118B4-100630	M118B4X-100701	M118B5	M118B5X	M118B6	M118B6X	M118B7	M118B7X	M118B8	M118B8X	M118B9	M118B9X
			SDG	RFS51	RFS51	RFT38	RFT38	RFU12	RFU12	RFB88	RFB88	CS019	CS019	CS147	CS147
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.92	-	2.59	0.66	-0.31	0.24	-	-	3.41	3.53	3.49	3.45
DO	mg/L	N	NS	0	-	11.73	4.03	6.62	4.11	-	-	3.48	0.08	1.87	0.57
ORP	millivolts	N	NS	-296	-	-234	-44	-44	-108	-	-	-369	-226	225	-476
pH	pH Units	N	NS	10.88	-	6.76	6.50	7.07	6.53	-	-	6.86	6.80	6.71	6.79
Alkalinity to pH 4.5	ug/L	N	NS	-	576000	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	519000	-	548000	-	364000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	519000	-	548000	-	364000
Arsenic	ug/L	N	3	10J	-	7.7J	-	10.9J	-	10.2	-	11.0	-	12.0	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	9.4	-	10.6	-	10.6	-
Benzene	ug/L	N	1	-	6	-	56	-	10	-	7	-	3J	-	1
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	25400	-	-	-	-	-	25200	-	29900	-	18800	-
Iron	ug/L	Y	300	24200	-	-	-	-	-	22900	-	25800	-	18000	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	-	-	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	5000U	-	-	-	-	-	69200	-	27000	-	61300
Sulfide	ug/L	N	NS	-	530U	-	-	-	-	-	600U	-	600U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-118	MW-118	MW-118	MW-118	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12
			Sample Date	10/22/2015	10/23/2015	02/01/2018	02/02/2018	10/19/1995	01/03/1996	02/23/1996	04/18/1996	03/19/2002	10/10/2002	10/10/2002	02/04/2003
			Field Sample ID	M118C1	M118C1X	M118D9	M118D9X	MW-0012A-1	MW-0012-AY	MW-0012-AX	MW-0012-AZ	M012A1	M012A3X	M012A3Y	M012A4X
			SDG	CS302	CS302	CS640	CS640	54399	60035	60694	61449	HPA01	RFE28	RFE28	RFE62
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	4.22	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	3.52	-	-	-	-	-	-	-	0.79	0.79	1.13
ORP	millivolts	N	NS	-	55	-	-	-	-	-	-	-	-84	-84	84
pH	pH Units	N	NS	-	6.75	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	543000	-	433000	-	-	-	-	-	-	143000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	1700U	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	543000	-	433000	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	5.6	-	2.8	-	4B*	9.1B*	3.8B*	4B*	-	4.9U	-	4.9U
Arsenic	ug/L	Y	3	4.8	-	2.9	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	1	-	2	1U	1U	1U	1U	-	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	7390	-	8860	-	-	-	-	-	-	5450	-	11400
Iron	ug/L	Y	300	4040	-	7820	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	-	-	-	1260	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	5000U	-	42500	-	-	-	-	-	-	66000J	-
Sulfide	ug/L	N	NS	-	680U	-	700U	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-12	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120
			Sample Date	02/05/2003	11/27/2002	11/27/2002	02/25/2003	02/26/2003	10/01/2003	05/20/2004	09/24/2004	06/03/2005	11/04/2005	06/01/2006	12/05/2006	06/05/2007
			Field Sample ID	M012A4Y	M120A1X	M120A1Y	M120A2Y	M120A2X	M120A3	M120A4A	M120A5	M120A6X	M120A7X	M120A8X	M120A9X	M120B1X
			SDG	RFE62	RFE40	RFE40	RFE65	RFE65	RFE88	RFF11	RFF25	RFF58	966187	991777	1016740	1041205
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	0.94	0.94	0.67	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	120	120	57	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	56100	-	104000	-	95300	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	410U	-	410U	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	56100	-	104000	-	95300	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	4.9U	-	4.9U	-	4.9U	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	5000	-	3700	-	7260	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	40U	40U	40U	40U	40U	40U	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	32700	-	23000	-	27200	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120
			Sample Date	08/13/2008	07/01/2009	06/08/2010	06/16/2011	03/13/2012	03/14/2012	05/29/2012	05/30/2012	07/31/2012	08/01/2012	09/06/2013	11/11/2013
			Field Sample ID	M120B2X	M120B3X	M120B4X-100608	M120B5X	M120B6	M120B6X	M120B7	M120B7X	M120B8	M120B8X	M120C2	M120C3
			SDG	1105279	1151840	RFS46	RFT33	RFU20	RFU20	RFU75	RFU77	RFV21	RFV23	CS005	CS043
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	2.81	0	1.07	2.04	0.3	1.4	1.63	1.36	4.92	1.79	2.4
DO	mg/L	N	NS	-	0	2.93	2.46	7.42	2.89	9.36	2.29	8.6	2.79	0.59	1.11
ORP	millivolts	N	NS	-	73	-23	53	75	47	128	95	-13	27	-404	-250
pH	pH Units	N	NS	-	5.32	5.91	6.08	6.40	5.92	6.16	6.16	6.16	6.09	6.05	5.88
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	5.1U	-	5.1U	-	6.8U	-	0.51J	0.78U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	18300	-	3120	-	2160	-	2490	2300
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-120	MW-121	MW-121	MW-121	MW-121
			Sample Date	03/06/2014	05/21/2014	08/06/2014	10/23/2014	03/23/2015	06/01/2015	09/15/2015	10/12/2017	01/22/2018	11/27/2002	11/27/2002	02/26/2003	02/26/2003
			Field Sample ID	M120C4	M120C5	M120C6	M120C7	M120C8	M120C9	M120D1	M120E2	M120E3	M121A1X	M121A1Y	M121A2X	M121A2Y
			SDG	CS070	CS102	CS137	CS176	CS211	CS245	CS284	CS616	CS634	RFE40	RFE40	RFE65	RFE65
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.09	2.04	1.28	1.44	1.98	-	2.36	1.47	1.87	-	-	-	-
DO	mg/L	N	NS	3.49	1.42	2.67	2.36	10.38	-	3.61	0.47	-0.14	0.62	0.62	1.05	1.05
ORP	millivolts	N	NS	17	-438	-206	94	122	-	166	84	131	-79	-79	246	246
pH	pH Units	N	NS	6.59	5.95	7.30	5.93	6.37	-	5.95	6.11	6.36	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	731000	-	386000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410U	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	731000	-	386000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	0.78U	0.78U	0.82U	3.8	7.3	0.82U	0.95J	0.81J	3.9	23.8	-	6.3J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	10	-	3J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	3050	3430	2950	14600	32200	2510	4670	4070	28000	294000	-	2500	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	400U	-	400U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	170000J	-	80500
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121
			Sample Date	09/26/2003	03/03/2004	03/04/2004	09/21/2004	09/22/2004	05/23/2005	05/24/2005	10/25/2005	10/26/2005	05/24/2006	05/25/2006	12/11/2006	12/12/2006
			Field Sample ID	M121A3	M121A4	M121A4A	M121A5	M121A5X	M121A6	M121A6X	M121A7	M121A7X	M121A8	M121A8X	M121A9	M121A9X
			SDG	RFE87	RFE98	RFE98	RFF25	RFF25	RFF55	RFF55	964862	964862	991108	991108	1017858	1017858
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	3.57	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	0.89	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-203	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	6.19	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	7.8J	4.9U	-	9.1J	-	9.3U	-	9.3U	-	10U	-	10U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	9	-	4J	-	13	-	2J	-	0.5U	-	0.5U	-	4J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	29000	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	2000U	-	40U	-	400U	-	40U	-	40U	-	2000U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-121	MW-122	MW-122
			Sample Date	05/17/2007	05/18/2007	07/29/2008	07/30/2008	05/19/2009	06/04/2010	07/19/2011	03/16/2012	03/01/2013	08/26/2014	10/24/2002	10/25/2002
			Field Sample ID	M121B1	M121B1X	M121B2	M121B2X	M121B3X	M121B4X-100604	M121B5X	M121B6X	M121B7X	M121B8X	M122A1Y	M122A1X
			SDG	1039073	1039073	1103086	1103086	1145500	RFS46	RFT43	RFU23	RFX87	CS146	RFE35	RFE35
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	1.89	-	-	0	0	9.38	-	4.79	-	-
DO	mg/L	N	NS	-	-	0.12	-	-	5.04	13.29	6.99	-	0.46	0.76	-
ORP	millivolts	N	NS	-	-	-114	-	-	-113	-122	-40	-	-406	-131	-
pH	pH Units	N	NS	-	-	6.18	-	-	6.42	6.94	6.88	-	6.44	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	277000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	277000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	11.0J	-	10.2U	-	-	-	-	-	-	-	20.1	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	2J	-	9J	6	3J	3J	0.8J	0.5U	0.5U	-	290
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	19700	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	7500U
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122
			Sample Date	02/25/2003	02/25/2003	09/23/2003	05/24/2004	10/06/2004	10/07/2004	06/06/2005	06/07/2005	11/03/2005	11/04/2005	11/13/2006	11/14/2006	05/30/2007
			Field Sample ID	M122A2X	M122A2Y	M122A3	M122A4	M122A5	M122A5X	M122A6	M122A6X	M122A7	M122A7X	M122A9	M122A9X	M122B1
			SDG	RFE65	RFE65	RFE87	RFF12	RFF28	RFF28	RFF58	RFF58	966187	966187	1014239	1014239	1040574
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	3.09	-	3.1	-	-	-	-	-	-
DO	mg/L	N	NS	1.11	1.11	-	-	0.4	-	0.51	-	-	-	-	-	-
ORP	millivolts	N	NS	-118	-118	-	-	-156	-	-131	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	6.74	-	6.76	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	1280000	-	234000	-	209000	-	213000	-	148000	-	169000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	410U	-	410U	-	410U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	1280000	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	11	-	9.8J	9.4U	4.7U	-	9.3U	-	9.3U	-	10U	-	10.0U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	350	270	230	-	220	-	230	-	120	-	86	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	16300	-	17900	15000	15400J	-	7790	-	3640	-	8530	-	49100
Iron	ug/L	Y	300	-	-	-	14700	15000J	-	7350	-	3570	-	7770	-	53200
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	800U	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	3000U	-	1500U	-	4400J	-	5900	-	1500U	-	3200J	-
Sulfide	ug/L	N	NS	-	-	-	530U	-	530U	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122
			Sample Date	05/31/2007	08/14/2008	08/14/2008	07/06/2009	07/07/2009	06/02/2010	06/02/2010	06/02/2011	06/03/2011	03/08/2012	03/08/2012	03/09/2012
			Field Sample ID	M122B1X	M122B2	M122B2X	M122B3	M122B3X	M122B4-100602	M122B4X-100602	M122B5	M122B5X	D0308121	M122B6	D0309121
			SDG	1040574	1105517	1105517	1152446	1152446	RFS45	RFS45	RFT27	RFT27	RFU16	RFU16	RFU16
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	2.8	-	4.15	4.15	0.18	-	0.41	0.41	0.99
DO	mg/L	N	NS	-	-	-	0	-	4.41	4.41	10.84	-	9.43	9.43	4.21
ORP	millivolts	N	NS	-	-	-	-182	-	-105	-105	-139	-	-131	-131	-53
pH	pH Units	N	NS	-	-	-	6.94	-	6.51	6.51	6.89	-	7.37	7.37	6.54
Alkalinity to pH 4.5	ug/L	N	NS	158000	-	197000	-	201000	-	191000	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.2U	-	7.2U	-	7.2U	-	9.8U	-	5.1U	5.1U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	180	-	150	-	150	-	140	-	120	-	-	120
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	14900	-	14000	-	10700	-	-	-	-	-	-
Iron	ug/L	Y	300	-	12700	-	15600	-	10000	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	2500U	-	5000U	-	2500U	-	2500U	-	-	-	-	-
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-122	MW-123	MW-123	MW-123	MW-123
			Sample Date	03/09/2012	04/08/2013	04/08/2013	04/09/2013	04/09/2013	05/28/2014	05/29/2014	04/16/2015	04/17/2015	11/25/2002	11/25/2002	04/28/2003	09/12/2003
			Field Sample ID	M122B6X	D0408131	M122B7	D0409131	M122B7X	M122B8	M122B8X	M122C4	M122C4X	M123A1X	M123A1Y	M123A2	M123A3
			SDG	RFU16	RFY63	RFY63	RFY63	RFY63	CS106	CS106	CS222	CS222	RFE40	RFE40		RFE86
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.99	3.84	3.84	4.03	4.03	2.65	2.87	-	2.67	-	-	-	3.2
DO	mg/L	N	NS	4.21	6.68	6.68	0.79	0.79	2.05	-	-	4.69	1.26	1.26	1.1	5.62
ORP	millivolts	N	NS	-53	-188	-188	-149	-149	-217	-	-	-127	-79	-79	-177	331
pH	pH Units	N	NS	6.54	7.03	7.03	6.68	6.68	7.07	-	-	7.03	-	-	-	7.18
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	606000	514000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410U	410	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	181000	188000	-	171000	-	113000	-	606000	514000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	700U	700U	-	700U	-	700U	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	181000	188000	-	171000	-	113000	-	-	-	-
Arsenic	ug/L	N	3	-	1.0J	0.89J	-	-	0.78U	-	0.88J	-	4.9U	-	4.9	4.9U
Arsenic	ug/L	Y	3	-	1.0J	1.1J	-	-	0.78U	-	0.82U	-	-	-	-	-
Benzene	ug/L	N	1	120	-	-	86	91	-	20	-	36	-	260	290	270
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	30200	29800	-	-	19200	-	6770	-	7560	-	4460	1790
Iron	ug/L	Y	300	-	30300	32100	-	-	17900	-	6300	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	40U	-	40U	-	40U	-	40U	40	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	5000U	5000U	-	10000U	-	5000U	-	15500	31900	-
Sulfide	ug/L	N	NS	-	-	-	600U	600U	-	600U	-	680U	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123
			Sample Date	09/27/2004	06/02/2005	06/03/2005	11/03/2005	11/04/2005	12/07/2006	12/08/2006	05/24/2007	05/25/2007	06/24/2008	06/25/2008	09/13/2010	09/14/2010
			Field Sample ID	M123A4	M123A5	M123A5X	M123A6	M123A6X	M123A7	M123A7X	M123A8	M123A8X	M123A9	M123A9X	M123B2	M123B2X
			SDG	RFF26	RFF58	RFF58	966187	966187	1017481	1017481	1040018	1040018	1097890	1097890	RFS67	RFS67
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.36	3.45	-	3.17	-	-	-	-	-	3.43	-	1.2	0
DO	mg/L	N	NS	-	0.22	-	0	-	-	-	-	-	0.53	-	0	4.81
ORP	millivolts	N	NS	-115	-130	-	-228	-	-	-	-	-	-49	-	-119	-119
pH	pH Units	N	NS	6.94	7.18	-	7.20	-	-	-	-	-	7.08	-	7.78	6.58
Alkalinity to pH 4.5	ug/L	N	NS	353000	-	503000	-	521000	-	594000	-	635000	-	733000	-	766000
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	410U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	140	-	140	-	200	-	190	-	180	-	200	-	88
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	5850	7420	-	2920	-	3210J	-	3470	-	3570	-	8820	-
Iron	ug/L	Y	300	2770	6270	-	2160	-	3090J	-	2760	-	844	-	8160	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	3000U	-	1500U	-	3000J	-	3000U	-	3400J	-	5000U	-	2500U
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-123	MW-124	MW-124	MW-124	MW-124
			Sample Date	06/14/2011	08/21/2012	04/19/2013	08/19/2013	08/27/2014	09/23/2014	09/23/2014	10/13/2015	10/13/2015	11/26/2002	11/26/2002	02/25/2003	02/25/2003
			Field Sample ID	M123B3X	M123B4X	M123B5X	M123B6	M123B7X	M123B8	M123B8X	M123C1	M123C1X	M124A1X	M124A1Y	M124A2X	M124A2Y
			SDG	RFT32	RFV30	RFY97	CP078	CS147	CP515	CP515	CP880	CP880	RFE40	RFE40	RFE65	RFE65
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.85	5.38	3.48	3.3	3.93	5.29	5.29	-	-	-	-	-	-
DO	mg/L	N	NS	2.84	4.08	0.2	0.43	0.53	3.05	3.05	-	-	4.03	4.03	0.83	0.83
ORP	millivolts	N	NS	-46	-143	-254	-52.5	-492	-27.3	-27.3	-	-	-26	-26	116	116
pH	pH Units	N	NS	6.95	6.99	6.93	6.36	6.76	6.63	6.63	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	496000	-	412000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410U	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	644000	-	-	-	-	-	-	496000	-	412000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	644000	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	0.92J	-	1.1J	-	1.1J	-	8.7J	-	6.7J	-
Arsenic	ug/L	Y	3	-	-	-	0.89J	-	0.97J	-	0.57J	-	-	-	-	-
Benzene	ug/L	N	1	40	47	180	16	10	-	7	-	19	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	5380	-	4550	-	3150	-	88200	-	6400	-
Iron	ug/L	Y	300	-	-	-	-	-	3100	-	2770	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	16000	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	-	-	-	-	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	127000	-	-	3100J	-	5200	-	13000	-	3000U
Sulfide	ug/L	N	NS	-	-	-	600U	-	-	600U	-	730J	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124
			Sample Date	08/28/2003	10/04/2004	10/05/2004	06/08/2005	06/09/2005	11/03/2005	11/04/2005	11/15/2006	11/16/2006	06/05/2007	06/06/2007	11/28/2007	11/29/2007
			Field Sample ID	M124A4	M124A5	M124A5X	M124A6	M124A6X	M124A7	M124A7X	M124A9	M124A9X	M124B1	M124B1X	M124B2	M124B2X
			SDG	RFE85	RFF27	RFF27	946781	946781	966187	966187	1014679	1014679	1041430	1041430	1067442	1067442
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	4.95	-	5.33	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	0.46	-	0	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-202	-	-228	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	7.17	-	7.37	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	5.0J	4.7U	-	9.3U	-	9.3U	-	10U	-	10.0U	-	10.0U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	21800	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124
			Sample Date	07/02/2008	07/03/2008	10/16/2008	10/17/2008	06/30/2009	07/01/2009	11/17/2009	11/18/2009	05/25/2010	05/26/2010	10/05/2010	10/06/2010
			Field Sample ID	M124B3	M124B3X	M124B4	M124B4X	M124B5	M124B5X	M124B7	M124B7X	M124B8-100525	M124B8X-100526	M124B8	M124B8X
			SDG	1099204	1099204	1115719	1115719	1151840	1151840	RFS20	RFS20	RFS44	RFS44	RFS69	RFS69
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.8	-	5.31	-	4.71	-	5.07	-	1.38	0.04	2.21	1.73
DO	mg/L	N	NS	0.42	-	0	-	0	-	0.83	-	12.79	5.18	7.8	4.79
ORP	millivolts	N	NS	-154	-	-135	-	-92	-	-91	-	-150	-140	-123	-20
pH	pH Units	N	NS	7.26	-	6.95	-	6.24	-	6.63	-	6.89	6.75	7.00	6.54
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.2U	-	13.4J	-	7.2U	-	8.7J	-	7.2U	-	9.8U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-124	MW-125
			Sample Date	05/31/2011	05/31/2011	06/01/2011	06/01/2011	02/15/2012	02/16/2012	03/14/2013	03/15/2013	06/04/2014	06/05/2014	02/12/2015	02/13/2015	11/22/2002
			Field Sample ID	D0531111	M124B9	D0601111	M124B9X	M124C1	M124C1X	M124C2	M124C2X	M124C3	M124C3X	M124C4	M124C4X	M125A1X
			SDG	RFT26	RFT26	RFT26	RFT26	RFU11	RFU11	RFY11	RFY11	CS109	CS109	CS201	CS201	RFE40
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.85	0.85	0	0	3.99	-0.02	5.32	5.07	4.91	4.87	5.14	5.52	-
DO	mg/L	N	NS	10.03	10.03	5.28	5.28	11.58	6.3	4.33	0.7	0.81	1.24	3.87	2.02	1
ORP	millivolts	N	NS	-148	-148	-107	-107	-13	-55	-167	-258	-225	-290	-71	-111	-95
pH	pH Units	N	NS	6.79	6.79	6.56	6.56	6.85	6.87	7.19	6.96	6.81	7.00	6.86	7.01	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	161000	-	275000	-	267000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	700U	-	700U	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	161000	-	275000	-	267000	-
Arsenic	ug/L	N	3	9.8U	9.8U	-	-	5.1U	-	0.94J	-	16.2	-	1.9J	-	4.9U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	0.40U	-	15.2	-	1.3J	-	-
Benzene	ug/L	N	1	-	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	2180	-	10400	-	3140	-	12500
Iron	ug/L	Y	300	-	-	-	-	-	-	33.3U	-	9710	-	437	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	180	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	49200	-	17900	-	2500U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	600U	-	600U	-	680U	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125
			Sample Date	11/22/2002	02/25/2003	02/25/2003	09/17/2003	03/10/2004	10/05/2004	10/06/2004	06/07/2005	06/08/2005	11/07/2005	11/08/2005	06/08/2006	06/09/2006
			Field Sample ID	M125A1Y	M125A2X	M125A2Y	M125A3	M125A4	M125A5	M125A5X	M125A6	M125A6X	M125A7	M125A7X	M125A8	M125A8X
			SDG	RFE40	RFE65	RFE65	RFE86	RFE99	RFF28	RFF28	946780	946780	966572	966572	993031	993031
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	5.4	-	5.37	-	-	-	-	-
DO	mg/L	N	NS	1	7.41	7.41	-	-	0.72	-	0.87	-	-	-	-	-
ORP	millivolts	N	NS	-95	216	216	-	-	-138	-	-184	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	6.71	-	6.88	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	752000	-	319000	-	253000	-	526000	-	346000	-	267000	-	311000
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	410U	-	410U	-	410U	-	410U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	752000	-	319000	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	7.9J	-	9.0J	4.9U	4.7U	-	9.3U	-	9.3U	-	10U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	800	-	19	37	14	-	110	-	17	-	84	-	290
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	870	-	5160	1330	11000J	-	14300	-	758	-	14400J	-
Iron	ug/L	Y	300	-	-	-	-	52.2J	12400J	-	12200	-	37.8U	-	15700J	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	69J	-	40U	40U	3400	-	40U	-	40U	-	3000	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	53000	-	77800	-	115000	-	9500	-	27400	-	101000	-	20300
Sulfide	ug/L	N	NS	-	-	-	-	530U	-	530U	-	530U	-	560J	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125
			Sample Date	11/21/2006	11/21/2006	06/06/2007	06/07/2007	08/07/2008	08/08/2008	06/15/2009	06/16/2009	06/30/2010	07/01/2010	06/29/2011	06/30/2011
			Field Sample ID	M125A9	M125A9X	M125B1	M125B1X	M125B2	M125B2X	M125B3	M125B3X	M125B4-100630	M125B4X-100701	M125B5	M125B5X
			SDG	1015254	1015254	1041628	1041628	1104631	1104631	1149447	1149447	RFS51	RFS51	RFT38	RFT38
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	5.57	-	5.34	-	1.65	0	2.19	0.12
DO	mg/L	N	NS	-	-	-	-	0.13	-	0	-	6.42	6.56	7.98	6.16
ORP	millivolts	N	NS	-	-	-	-	-157	-	-110	-	-125	0	-95	-35
pH	pH Units	N	NS	-	-	-	-	6.42	-	6.75	-	8.35	0.00	6.70	6.49
Alkalinity to pH 4.5	ug/L	N	NS	-	637000	-	109000	-	440000	-	282000	-	258000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10U	-	15.2J	-	10.2U	-	14.3J	-	9.8U	-	11.1J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	770	-	19	-	1900	-	810	-	700	-	95
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	18500J	-	6920	-	15800	-	13300	-	11000	-	-	-
Iron	ug/L	Y	300	14700J	-	4990	-	15800	-	11700	-	11100	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	400U	-	40U	-	40U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	6000U	-	29400	-	8700J	-	18200	-	5000U	-	-
Sulfide	ug/L	N	NS	-	1100J	-	530U	-	530U	-	4200	-	530U	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-125	MW-126	MW-154	MW-154
			Sample Date	02/20/2012	02/21/2012	03/27/2013	03/28/2013	02/12/2014	02/12/2014	10/22/2015	10/23/2015	02/01/2018	02/02/2018	11/25/2002	07/29/2008	07/30/2008
			Field Sample ID	M125B6	M125B6X	M125B7	M125B7X	M125B8	M125B8X	M125B9	M125B9X	M125C9	M125C9X	M126A1X	M154A4	M154A4X
			SDG	RFU12	RFU12	RFY40	RFY40	CS062	CS062	CS302	CS302	CS640	CS640	RFE42	1103086	1103086
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-0.4	2.85	4.89	5.05	5.54	5.54	-	6.27	-	-	-	5.45	-
DO	mg/L	N	NS	7.92	6.23	3.32	0.53	1.04	1.04	-	3.49	-	-	0.87	0.62	-
ORP	millivolts	N	NS	-50	31	-199	-90	-163	-163	-	122	-	-	22	-84	-
pH	pH Units	N	NS	6.93	6.65	7.02	6.81	6.69	6.69	-	6.58	-	-	-	5.99	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	343000	-	558000	-	580000	-	567000	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	700U	-	700U	-	700U	-	1700U	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	343000	-	558000	-	580000	-	567000	-	-	-
Arsenic	ug/L	N	3	5.1U	-	2.5	-	2.0	-	1.6U	-	1.5J	-	4.9U	10.2U	-
Arsenic	ug/L	Y	3	-	-	2.4	-	1.1J	-	1.5U	-	1.5J	-	-	-	-
Benzene	ug/L	N	1	-	840	-	500	-	840	-	260	-	390	-	-	3U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	16500	-	3790	-	3280	-	6130	-	3880	-	-
Iron	ug/L	Y	300	-	-	17100	-	988	-	296	-	1670	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	48J	-	400U	-	40U	-	40U	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	69700	-	35500	-	88100	-	1000U	-	-	-
Sulfide	ug/L	N	NS	-	-	-	600U	-	600U	-	680U	-	700U	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154
			Sample Date	11/10/2008	11/11/2008	06/08/2009	06/09/2009	11/18/2009	11/19/2009	06/15/2010	06/15/2010	09/29/2010	09/29/2010	08/03/2011	08/04/2011
			Field Sample ID	M154A5	M154A5X	M154A6	M154A6X	M154A7	M154A7X	M154A8-100615	M154A8X-100615	M154A9	M154A9X	M154B1	M154B1X
			SDG	1119533	1119533	1148434	1148434	1171988	1171988	RFS47	RFS47	RFS69	RFS69	RFT50	RFT50
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.94	-	5.51	-	6.02	-	5.49	5.49	5.83	5.83	5.62	7.1
DO	mg/L	N	NS	0	-	0.15	-	1.23	-	1.02	1.02	0	0	3.49	1.86
ORP	millivolts	N	NS	-46	-	-84	-	-25	-	-75	-75	-87	-87	-22	-44
pH	pH Units	N	NS	6.33	-	5.97	-	5.79	-	6.52	6.52	6	6	6.26	6.41
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.0U	-	7.2U	-	7.2U	-	9.8U	-	9.8U	-	5.1U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154
			Sample Date	11/21/2011	11/22/2011	03/26/2012	03/27/2012	08/15/2012	08/16/2012	04/03/2013	04/04/2013	09/19/2013	10/29/2013	03/27/2014	03/28/2014	11/12/2014
			Field Sample ID	M154B2	M154B2X	M154B3	M154B3X	M154B4	M154B4X	M154B5	M154B5X	M154B6	M154B7X	M154B8	M154B8X	M154B9
			SDG	RFT88	RFT88	RFU30	RFU30	RFV29	RFV29	RFY53	RFY53	CS013	CS034	CS078	CS078	CS185
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.01	7.72	5.92	7.24	5.92	6.57	6.6	7.75	6.12	6.91	6.26	8.35	6.36
DO	mg/L	N	NS	7.51	4.59	2.16	1.93	7.39	4.62	3.17	2.37	0.54	0.14	2.75	1.83	2.08
ORP	millivolts	N	NS	-20	-33	-40	35	-99	-72	-87	-118	-368	-235	-311	-298	-207
pH	pH Units	N	NS	6.43	6.34	6.37	6.04	6.28	6.13	6.23	6.3	6.21	6	6.1	6.37	6.09
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	700U	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	148000	-	234000	-	174000	-	262000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	148000	-	234000	-	174000	-	262000	-
Arsenic	ug/L	N	3	5.1U	-	5.1U	-	0.91J	-	0.81J	-	0.92J	-	3.7	-	1.1J
Arsenic	ug/L	Y	3	-	-	-	-	1.0J	-	0.62J	-	0.92J	-	0.78U	-	1.1U
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	68100	-	38900	-	29800	-	7860	-	13900
Iron	ug/L	Y	300	-	-	-	-	60700	-	31300	-	18600	-	3910	-	9870
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	12500U	-	5000U	-	25000U	-	10000U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	800J	-	600U	-	600U	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-158
			Sample Date	11/13/2014	04/15/2015	04/16/2015	02/02/2016	02/08/2016	02/09/2016	08/15/2016	08/16/2016	02/14/2017	02/15/2017	08/21/2017	08/22/2017	12/04/2002
			Field Sample ID	M154B9X	M154C1	M154C1X	M154HS	M154C2	M154C2X	M154C3	M154C3X	M154C4	M154C4X	M154C5	M154C5X	M158A1Y
			SDG	CS185	CS221	CS221	CS349	CS353	CS353	CS440	CS440	CS514	CS514	CS592	CS592	RFE43
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	SP	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.19	6.72	6.95	-	-	9.44	-	8.34	-	4.89	-	10.05	-
DO	mg/L	N	NS	16.08	-0.7	2.45	-	-	2.35	-	0.47	-	3.14	-	2.88	0.89
ORP	millivolts	N	NS	265	-20	-92	-	-	-115	-	-92	-	82	-	-54	180
pH	pH Units	N	NS	6.97	6.05	6.39	-	-	6.12	-	6.99	-	6.98	-	7.1	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	276000	-	137000	40800	-	129000	-	149000	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	700U	-	700U	-	1700U	-	1700U	-	1700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	276000	-	137000	40800	-	129000	-	149000	-	98700	-	164000	-
Arsenic	ug/L	N	3	-	0.82U	-	0.88J	0.54U	-	3.1	-	0.68U	-	3.4	-	7.3J
Arsenic	ug/L	Y	3	-	0.82U	-	0.54U	0.54U	-	1.3J	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	4610	-	6590	5070	-	8700	-	791	-	10800	-	837
Iron	ug/L	Y	300	-	3690	-	1360	246	-	4320	-	4360	-	7770	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	5000U	-	5000U	8300J	-	10000U	-	10000U	-	21800	-	5000U	-
Sulfide	ug/L	N	NS	600U	-	680U	700U	-	700U	-	700U	-	700U	-	700U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
			Sample Date	12/05/2002	02/03/2003	02/04/2003	09/29/2003	05/27/2004	05/27/2004	08/09/2004	03/10/2005	08/11/2005	03/07/2006	09/01/2006	03/13/2007
			Field Sample ID	M158A1X	M158A2Y	M158A2X	M158A3	040527MW-158	040527MW-158	MW158A4	M158A5	M158A6	M158A7	M158A8	M158A9
			SDG	RFE45	RFE62	RFE62	RFE87	PHS01	PHS02	RFF18	RFF43	955073	980623	1004086	1029141
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	0.82	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-104	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	2630000	-	2380000	-	3140000	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	410U	-	410U	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	2630000	-	2380000	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	13	-	8.5J	15.4	-	11.1	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	10.4	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	3U	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	73400	-	92600	124000	-	9690	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	122000	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	400U	200U	-	1000U	40U	40U	40U	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	232000	-	284000	-	43200	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	1300J	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
			Sample Date	09/21/2007	03/03/2008	03/04/2008	09/29/2008	09/30/2008	02/17/2009	02/18/2009	10/12/2009	10/13/2009	03/10/2010	03/11/2010	08/17/2010	08/18/2010
			Field Sample ID	M158B1	M158B2	M158B2X	M158B3	M158B3X	M158B4	M158B4X	M158B5	M158B5X	M158B6	M158B6X	M158B7	M158B7X
			SDG	1057469	1080011	1080011	1112628	1112628	1132740	1132740	1166229	1166229	RFS33	RFS33	RFS64	RFS64
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	3.54	-	3.55	-	3.7	-	4.36	-	3.59	-	4.1	7.78
DO	mg/L	N	NS	-	0	-	0	-	0	-	0	-	0	-	1.84	0.52
ORP	millivolts	N	NS	-	-109	-	-140	-	-83	-	-52	-	-68	-	-154	-40
pH	pH Units	N	NS	-	6.81	-	6.85	-	7.03	-	6.5	-	6.6	-	10.19	8.65
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	-	10.2U	-	10.0U	-	7.2U	-	7.2U	-	9.8U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3U	-	3U	-	5U	-	0.5U	-	3U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	95300	-	16300	-	35900	-	35400	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
			Sample Date	04/25/2011	04/26/2011	09/21/2011	09/22/2011	06/06/2012	06/07/2012	09/04/2012	09/05/2012	05/20/2013	05/21/2013	10/01/2013	10/02/2013	06/24/2014
			Field Sample ID	M158B8	M158B8X	M158B9	M158B9X	M158C1	M158C1X	M158C2	M158C2X	M158C3	M158C3X	M158C4	M158C4X	M158C5
			SDG	RFT13	RFT13	RFT71	RFT71	RFU80	RFU80	RFV35	RFV35	RFZ61	RFZ61	CS020	CS020	CS117
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.48	-	3.88	12.7	2.95	10.29	4.63	11.55	3.48	11.7	-	-	-
DO	mg/L	N	NS	1.44	-	1.63	6.08	1.05	2.25	5.48	2.21	0.95	-0.52	-	-	0.48
ORP	millivolts	N	NS	-70	-	-84	112	-105	-65	-183	-34	-183	-184	-	-	-119
pH	pH Units	N	NS	6.52	-	6.74	6.81	7.78	6.99	7.28	7.11	6.93	6.9	-	-	6.66
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	700U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	2220000	-	2000000	-	2000000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	2220000	-	2000000	-	2000000	-
Arsenic	ug/L	N	3	49.0U	-	5.8J	-	5.1U	-	4.9	-	2.6	-	5.4	-	4.6
Arsenic	ug/L	Y	3	-	-	-	-	-	-	5.4	-	2.2	-	4.8	-	3.8
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	252000	-	35900	-	60200	-	31800	-	50400	-	54700	-	80100
Iron	ug/L	Y	300	-	-	-	-	-	-	30800	-	46900	-	53600	-	79400
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	85400	-	37000	-	10000U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	600U	-	730J	-	2200	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
			Sample Date	06/25/2014	11/05/2014	11/06/2014	07/14/2015	07/15/2015	03/17/2016	03/18/2016	09/12/2016	09/13/2016	03/28/2017	03/29/2017	08/29/2017	08/30/2017
			Field Sample ID	M158C5X	M158C6	M158C6X	M158C7	M158C7X	M158C8	M158C8X	M158C9	M158C9X	M158D1	M158D1X	M158D2	M158D2X
			SDG	CS117	CS182	CS182	CS261	CS261	CS376	CS376	CS452	CS452	CS533	CS533	CS596	CS596
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.08	-	11.53	4.02	13.94	3.49	11.47	-	10.17	-	4.35	3.72	10.48
DO	mg/L	N	NS	0.25	-0.55	0	0.35	3.73	0.78	2.84	-	1.3	-0.09	3.35	0.21	1
ORP	millivolts	N	NS	-114	-132	-50	-119	-370	-119	-3	-	-159	-111	-112	-84	-65
pH	pH Units	N	NS	6.61	6.74	6.74	6.56	-	6.78	5.9	-	6.84	6.85	6.67	7.03	6.66
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	1200000	-	1740000	-	1540000	-	261000	-	1730000	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	700U	-	700U	-	1700U	-	1700U	-	1700U
Alkalinity, Total as CaCO3	ug/L	N	NS	1200000	-	1740000	-	1540000	-	261000	-	1730000	-	77500	-	1610000
Arsenic	ug/L	N	3	-	2.4	-	3.8J	-	3.0J	-	2.2	-	1.7J	-	2.0J	-
Arsenic	ug/L	Y	3	-	1.9J	-	2.8	-	2.5J	-	2.1	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	3UJ	-	0.5U	-	0.5U	-	0.5U	-	5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	8590	-	51100	-	9330	-	5920	-	10600	-	9640	-
Iron	ug/L	Y	300	-	3860	-	43500	-	5540	-	5850	-	6170	-	6970	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	120	-	380	-	40U	-	590	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	12500U	-	83100	-	36200	-	491000	-	39300	-	370000	-	281000
Sulfide	ug/L	N	NS	600U	-	600U	-	2200	-	700U	-	2500	-	700U	-	700U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-165R	MW-165R	MW-165R	MW-165R	MW-165R	MW-165R	MW-165R	MW-165R	MW-166R	MW-126	MW-126	MW-126	MW-126
			Sample Date	04/26/2017	04/26/2017	09/06/2017	09/06/2017	11/30/2017	11/30/2017	11/30/2017	03/09/2018	04/26/2017	11/25/2002	02/13/2003	02/13/2003	08/27/2003
			Field Sample ID	M165RA5	M165RA5X	M165RA6	M165RA6X	D1130178	M165RA7	M165RA7X	M165RA8X	M166RD1	M126A1Y	M126A2X	M126A2Y	M126A4
			SDG	CQ608	CQ608	CQ756	CQ756	CQ910	CQ910	CQ910	CQ997	CQ608	RFE42	RFE64	RFE64	RFE85
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	11.3	11.3	8.52	8.52	10.38	10.38	10.38	-	11.41	-	-	-	-
DO	mg/L	N	NS	8.33	8.33	2.66	2.66	4.33	4.33	4.33	-	3.77	0.87	-	-	-
ORP	millivolts	N	NS	15.1	15.1	-51.3	-51.3	-35.8	-35.8	-35.8	-	-61.4	22	-	-	-
pH	pH Units	N	NS	6.68	6.68	6.71	6.71	6.43	6.43	6.43	-	6.44	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	307000	-	623000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	410U	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	307000	-	623000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	8.8	-	12.8	-	6	5	-	-	4.2	-	4.9U	-	4.9U
Arsenic	ug/L	Y	3	9.1	-	14.1	-	4.2	3.4	-	-	4.8	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	3	2	-	2	1	-	0.5U	-	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	3620	-	18700	-	16000	15600	-	-	129000	-	390	-	177J
Iron	ug/L	Y	300	2900	-	19100	-	14800	14200	-	-	135000	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	1700	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	40U	-	40U	290
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	1270000	-	1230000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	4600	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126
			Sample Date	03/08/2004	03/11/2004	09/29/2004	09/30/2004	06/09/2005	06/10/2005	11/07/2005	11/08/2005	11/15/2006	11/16/2006	06/05/2007	06/06/2007	11/28/2007
			Field Sample ID	M126A5	M126A5A	M126A6	M126A6X	M126A7	M126A7X	M126A8	M126A8X	M126B1	M126B1X	M126B2	M126B2X	M126B3
			SDG	RFE99	RFE99	RFF27	RFF27	947003	947003	966572	966572	1014679	1014679	1041430	1041430	1067442
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	7.49	-	8.11	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	0.53	-	3.18	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-244	-	-155	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	6.92	-	6.97	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	108000	-	73200	-	843000	-	136000	-	85900	-	109000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	410U	-	410U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	-	4.9J	-	9.3U	-	9.3U	-	10U	-	10.0U	-	10.0U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	45.3U	-	293	-	54.9J	-	141J	-	529	-	52.2U	-	799
Iron	ug/L	Y	300	45.3U	-	188J	-	37.8U	-	37.8U	-	293	-	261U	-	777
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	1000	-	380	-	1300	-	530	-	680	-	430	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	1510000	-	1220000	-	1540000	-	1380000	-	985000	-	1390000	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	4000	-	530U	-	530U	-	7000	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-126	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-126	MW-126	MW-126	MW-126	MW-126
			Sample Date	11/29/2007	05/23/2007	05/24/2007	12/17/2007	12/18/2007	06/23/2008	06/24/2008	10/29/2008	07/02/2008	07/03/2008	10/16/2008	10/17/2008	07/06/2009
			Field Sample ID	M126B3X	M211A6	M211A6X	M211A7	M211A7X	M211A8	M211A8X	M211A9	M126B4	M126B4X	M126B5	M126B5X	M126B6
			SDG	1067442	1039857	1039857	1070340	1070340	1097656	1097656	1117661	1099204	1099204	1115719	1115719	1152446
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	3.11	-	3.26	-	-	5.96	-	8.48
DO	mg/L	N	NS	-	-	-	-	-	0.25	-	0	-	-	2.75	-	0
ORP	millivolts	N	NS	-	-	-	-	-	-114	-	113	-	-	62	-	-313
pH	pH Units	N	NS	-	-	-	-	-	7.12	-	6.81	-	-	6.83	-	6.79
Alkalinity to pH 4.5	ug/L	N	NS	101000	-	711000	-	712000	-	639000	-	-	125000	-	450000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	10.2U	-	10.2U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5J	-	0.5U	-	0.5U	-	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	42000	-	27100	-	21200	-	7890	340	-	52.2U	-	1420
Iron	ug/L	Y	300	-	31300	-	20600	-	9630	-	216	52.2U	-	52.2U	-	1060
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	960	-	800U	-	40U	-	100	-	-	720	-	610	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	2070000	-	7400	-	10700	-	10000U	-	-	1750000	-	1950000	-
Sulfide	ug/L	N	NS	530U	-	600J	-	530U	-	530U	-	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126	MW-126
			Sample Date	07/07/2009	11/17/2009	11/18/2009	05/25/2010	05/26/2010	10/07/2010	10/08/2010	05/25/2011	05/26/2011	02/16/2012	03/15/2013	06/24/2014
			Field Sample ID	M126B6X	M126B7	M126B7X	M126B8-100525	M126B8X-100526	M126B9	M126B9X	M126C1	M126C1X	M126C2X	M126C3X	M126C4X
			SDG	1152446	RFS20	RFS20	RFS44	RFS44	RFS72	RFS72	RFT25	RFT25	RFU11	RFY11	CS116
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	7.03	-	0.4	3.66	5.88	6.14	0.25	4.12	0.08	13.62	8.58
DO	mg/L	N	NS	-	0.6	-	0	8.88	7.38	6.62	13.89	0.919	8.89	0.46	2.7
ORP	millivolts	N	NS	-	-297	-	-345	-199	165	215	-320	-41	-31	-365	1
pH	pH Units	N	NS	-	6.72	-	7.20	7.17	6.44	6.67	6.83	6.76	7.02	7.09	6.78
Alkalinity to pH 4.5	ug/L	N	NS	322000	-	89800	-	130000	-	101000	-	75000	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	247	-	116J	-	369J	-	117J	-	-	-	-
Iron	ug/L	Y	300	-	52.2U	-	52.2U	-	261U	-	52.2U	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	700	-	970	-	890	-	140	-	860	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1310000	-	1770000	-	1530000	-	2910000	-	995000	-	-	-
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	4100	-	530U	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-126	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127
			Sample Date	02/19/2015	11/26/2002	11/27/2002	02/13/2003	02/14/2003	02/14/2003	08/26/2003	03/02/2004	03/04/2004	09/29/2004	09/30/2004	06/13/2005	06/14/2005
			Field Sample ID	M126C5X	M127A1X	M127A1Y	M127A2Y	M127A2X	M127A2Z	M127A4	M127A5	M127A5A	M127A6	M127A6X	M127A7	M127A7X
			SDG	CS202	RFE42	RFE42	RFE64	RFE64	RFE64	RFE85	RFE98	RFE98	RFF27	RFF27	947365	947365
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.46	-	-	-	-	-	-	-	-	7.53	-	8.54	-
DO	mg/L	N	NS	1.99	4.07	-	1.13	-	-	-	-	-	0.9	-	1.1	-
ORP	millivolts	N	NS	-144	-136	-	0	-	-	-	-	-	-145	-	-204	-
pH	pH Units	N	NS	6.90	-	-	-	-	-	-	-	-	6.68	-	6.66	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	914000	-	-	1980000	-	-	2380000	-	352000	-	1070000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	410U	-	-	410U	-	-	410U	-	410U	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	914000	-	-	1980000	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	4.9U	-	7.9J	-	-	4.9U	-	33.3	4.7U	-	9.3U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	13500	-	10600	-	-	12400	-	5710	9960	-	8070	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	11800	-	9770	-	7600	-
Methane	ug/L	N	NS	-	-	650	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	40U	-	710	-	200U	-	150	-	400U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	63000	-	30000U	-	-	-	7500U	-	38800	-	22600
Sulfide	ug/L	N	NS	-	-	1080J	-	-	-	-	-	4200U	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127
			Sample Date	11/10/2005	11/11/2005	11/27/2006	11/28/2006	06/06/2007	06/07/2007	06/07/2007	11/15/2007	11/16/2007	07/17/2008	07/18/2008	10/16/2008	10/17/2008
			Field Sample ID	M127A8	M127A8X	M127B1	M127B1X	M127B2	D0607071	M127B2X	M127B3	M127B3X	M127B4	M127B4X	M127B5	M127B5X
			SDG	967213	967213	1015744	1015744	1041628	1041628	1041628	1066019	1066019	1101417	1101417	1115719	1115719
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	7.63	-	8.42	-	8.24	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	1.03	-	0.9	-	0	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-36	-	17	-	-185	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	6.58	-	6.46	-	6.68	-
Alkalinity to pH 4.5	ug/L	N	NS	-	143000	-	383000	-	129000	115000	-	20500	-	1120000	-	1060000
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	9.3U	-	10U	-	10.0U	-	-	10.0U	-	13.1J	-	10.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	924	-	5930	-	5490	-	-	693	-	517	-	5140	-
Iron	ug/L	Y	300	640	-	6230	-	5120	-	-	372	-	52.2U	-	4220	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	73J	-	40U	-	40U	40U	-	1800	-	370	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	47500	-	64600	-	35000	32200	-	64700	-	29300	-	2500U
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	530U	-	530U	-	530U	-	700J

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127
			Sample Date	07/06/2009	07/07/2009	11/17/2009	11/18/2009	05/25/2010	05/26/2010	10/07/2010	10/08/2010	05/25/2011	05/26/2011	02/15/2012	02/16/2012
			Field Sample ID	M127B6	M127B6X	M127B7	M127B7X	M127B8-100525	M127B8X-100526	M127B9	M127B9X	M127C1	M127C1X	M127C2	M127C2X
			SDG	1152446	1152446	RFS20	RFS20	RFS44	RFS44	RFS72	RFS72	RFT25	RFT25	RFU11	RFU11
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.99	-	7.74	-	1.41	0.79	1.56	1.05	0.58	-	-0.18	1.86
DO	mg/L	N	NS	0	-	0.9	-	0	13.41	13.39	8.54	14.13	-	13.18	13.62
ORP	millivolts	N	NS	-87	-	-167	-	-111	-110	-136	-131	-121	-	12	-44
pH	pH Units	N	NS	6.10	-	6.51	-	6.73	6.62	6.53	6.65	6.84	-	6.67	6.67
Alkalinity to pH 4.5	ug/L	N	NS	-	491000	-	463000	-	1800000	-	422000	-	367000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	7.2U	-	7.2U	-	7.2U	-	9.8U	-	9.8U	-	5.1U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	4060	-	3350	-	331	-	831	-	3100	-	-	-
Iron	ug/L	Y	300	4060	-	2770	-	52.2U	-	662	-	2490	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	15600	-	65000	-	20800	-	54700	-	64700	-	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	800J	-	530U	-	530U	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-127	MW-127	MW-127	MW-127	MW-127	MW-127	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128
			Sample Date	03/11/2013	03/11/2013	06/23/2014	06/24/2014	02/18/2015	02/19/2015	10/17/2002	10/17/2002	10/17/2002	01/30/2003	01/30/2003	09/18/2003	09/28/2004
			Field Sample ID	M127C3	M127C3X	M127C4	M127C4X	M127C5	M127C5X	M128A1X	M128A1X	M128A1Y	M128A2X	M128A2Y	M128A3	M128A4
			SDG	RFX98	RFX98	CS116	CS116	CS202	CS202	RFE32	RFE33	RFE33	RFE62	RFE62	RFE86	RFF26
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.09	8.09	14.71	14.35	8.35	14.07	-	-	-	-	-	-	8.22
DO	mg/L	N	NS	3.94	3.94	0.46	0.21	3.32	0.72	1.58	1.58	1.58	1.51	1.51	-	0.32
ORP	millivolts	N	NS	-248	-248	-115	-100	7	-325	-28	-28	-28	33	33	-	-153
pH	pH Units	N	NS	6.91	6.91	6.16	6.78	6.76	6.86	-	-	-	-	-	-	6.75
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	237000	-	-	107000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	410U	-	-	410U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	403000	-	1280000	-	1590000	-	237000	-	-	107000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	403000	-	1280000	-	1590000	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	1.2J	-	4.8	-	0.88J	-	-	-	4.9U	4.9U	-	4.9U	4.7U
Arsenic	ug/L	Y	3	0.69J	-	1.5J	-	0.82U	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.7J	-	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	1480	-	2430	-	2030	-	-	-	7440	2600	-	11100	25800
Iron	ug/L	Y	300	33.3U	-	2220	-	1690	-	-	-	-	-	-	-	24400
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	-	40U	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	137000	-	12500U	-	2500U	-	3000U	-	-	1500U	-	-
Sulfide	ug/L	N	NS	-	600U	-	600U	-	680U	530U	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128
			Sample Date	09/29/2004	06/01/2005	11/10/2005	11/11/2005	06/14/2006	06/15/2006	11/09/2006	11/09/2006	06/11/2007	06/12/2007	08/19/2008	08/20/2008	06/10/2009
			Field Sample ID	M128A4X	M128A5	M128A6	M128A6X	M128A7	M128A7X	M128A8	M128A8X	M128A9	M128A9X	M128B1	M128B1X	M128B2
			SDG	RFF26	RFF57	967213	967213	993798	993798	1013690	1013690	1042260	1042260	1106372	1106372	1148815
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	8.66	-	-	-	-	-	-	-	-	7.75	-	7.1
DO	mg/L	N	NS	-	0.2	-	-	-	-	-	-	-	-	0	-	0.96
ORP	millivolts	N	NS	-	-74	-	-	-	-	-	-	-	-	-149	-	-106
pH	pH Units	N	NS	-	6.76	-	-	-	-	-	-	-	-	6.87	-	6.89
Alkalinity to pH 4.5	ug/L	N	NS	78000	58500	-	76400	-	57500	-	68800	-	56400	-	78700	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	410U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.3U	9.3U	-	10U	-	10U	-	10.0U	-	10.2U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	73	6	-	0.9J	-	3J	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	11500	10400	-	13400J	-	11100J	-	25700	-	13800	-	15500
Iron	ug/L	Y	300	-	7770	9830	-	13300J	-	10500J	-	22600	-	13400	-	11700
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	6000U	3500J	-	3000U	-	3900J	-	1800J	-	5000U	-	5000U	-
Sulfide	ug/L	N	NS	530U	530U	-	600J	-	530U	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-128	MW-13	MW-13	MW-13
			Sample Date	06/11/2009	06/14/2010	06/15/2010	08/02/2011	03/28/2012	03/21/2013	03/21/2013	09/09/2014	04/17/2015	09/22/1997	10/22/2002	10/22/2002
			Field Sample ID	M128B2X	M128B3-100614	M128B3X-100615	M128B4X	M128B5X	D0321131	M128B6X	M128B7X	M128B8X	MW-0013-A1	M013A2X	M013A2Y
			SDG	1148815	RFS47	RFS47	RFT49	RFU32	RFY20	RFY20	CS153	CS222	74432	RFE34	RFE34
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	4.2	1.22	-	-	7.53	7.53	8.34	7.75	-	-	-
DO	mg/L	N	NS	-	7.33	7.43	8.92	9.23	-	-	-	5.87	-	1.06	1.06
ORP	millivolts	N	NS	-	-114	122	-	-	-	-	-	-95	-	25	25
pH	pH Units	N	NS	-	6.81	6.99	-	-	-	-	-	6.56	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	106000	-	115000	-	-	-	-	-	-	-	-	68800
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	-	-	-	-	-	-	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	68800
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	8.01	16.1	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	1U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	9240	-	-	-	-	-	-	-	-	15200	-
Iron	ug/L	Y	300	-	6040	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	-	-	-	-	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	5000U	-	10000U	-	-	-	-	-	-	-	-	550000
Sulfide	ug/L	N	NS	530U	-	530U	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133
			Sample Date	02/27/2003	02/27/2003	09/13/2017	09/13/2017	12/05/2017	12/05/2017	03/13/2018	10/17/2002	10/17/2002	10/17/2002	10/06/2004	10/07/2004	06/01/2005
			Field Sample ID	M013A3X	M013A3Y	D0913178A	M013A5	M013A6	M013A6X	M013A7X	M133A1X	M133A1X	M133A1Y	M133A2	M133A2X	M133A3
			SDG	RFE65	RFE65	CQ768	CQ768	CQ914	CQ914	CQ999	RFE32	RFE33	RFE33	RFF28	RFF28	RFF57
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	4.92
DO	mg/L	N	NS	0.78	0.78	-	-	-	-	-	1.77	1.77	1.77	0.1	-	0.07
ORP	millivolts	N	NS	280	280	-	-	-	-	-	-35	-35	-35	-194	-	-160
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	6.67	-	7.08
Alkalinity to pH 4.5	ug/L	N	NS	-	118000	-	-	-	-	-	-	256000	-	-	288000	271000
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	-	-	-	-	-	410U	-	-	410U	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	118000	-	-	-	-	-	-	256000	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	-	10.5	9.8J	15.8	-	-	-	-	7.1J	-	-	-
Arsenic	ug/L	Y	3	-	-	7.5	7.3J	7.7	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	-	-	0.5U	0.5U	-	2J	-	-	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	7000	-	46000	45900	37600	-	-	-	-	18300	20100J	-	23900
Iron	ug/L	Y	300	-	-	44700	44700	30900	-	-	-	-	-	18200J	-	23600
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	-	-	-	-	40U	-	-	40U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	196000	-	-	-	-	-	-	51000	-	-	1500U	1500U
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	530U	-	-	-	530U	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133
			Sample Date	11/14/2005	11/15/2005	06/15/2006	06/15/2006	11/21/2006	11/21/2006	06/11/2007	06/12/2007	12/11/2007	12/12/2007	08/14/2008	08/15/2008	07/07/2009
			Field Sample ID	M133A4	M133A4X	M133A5	M133A5X	M133A6	M133A6X	M133A7	M133A7X	M133A8	M133A8X	M133A9	M133A9X	M133B1
			SDG	967531	967531	993798	993798	1015254	1015254	1042260	1042260	1069481	1069481	1105739	1105739	1152663
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.3	-	-	-	-	-	-	-	-	-	4.01	-	3.39
DO	mg/L	N	NS	0	-	-	-	-	-	-	-	-	-	9.71	-	0
ORP	millivolts	N	NS	-162	-	-	-	-	-	-	-	-	-	165	-	-132
pH	pH Units	N	NS	6.78	-	-	-	-	-	-	-	-	-	4.53	-	6.80
Alkalinity to pH 4.5	ug/L	N	NS	-	248000	-	292000	-	272000	-	314000	-	331000	-	341000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	13.5J	-	15.8J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	3U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	10100	-	17500J	-	17800J	-	26000	-	16900	-	20800	-	20300
Iron	ug/L	Y	300	9270	-	12300J	-	17800J	-	27700	-	10700	-	20400	-	18700
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	1500U	-	2100J	-	6000U	-	5000U	-	13800	-	9400J	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133	MW-133
			Sample Date	07/08/2009	07/09/2010	07/09/2010	08/03/2011	08/04/2011	04/23/2012	04/24/2012	04/03/2013	04/04/2013	09/09/2014	09/10/2014	04/16/2015	04/17/2015
			Field Sample ID	M133B1X	M133B2	M133B2X	M133B3	M133B3X	M133B4	M133B4X	M133B5	M133B5X	M133B6	M133B6X	M133B7	M133B7X
			SDG	1152663	RFS54	RFS54	RFT50	RFT50	RFU46	RFU46	RFY53	RFY53	CS155	CS155	CS222	CS222
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	1.77	1.77	1.23	-	2.41	-	8.95	4.72	10.13	4.54	-	4.42
DO	mg/L	N	NS	-	6.06	6.06	8.55	4.03	13.08	3.75	0.47	-	0.05	-	-	4.09
ORP	millivolts	N	NS	-	0	0	-113	-	-	-	-171	-	26	-	-	-120
pH	pH Units	N	NS	-	0.00	0.00	7.27	-	-	-	7.08	-	7.33	-	-	6.72
Alkalinity to pH 4.5	ug/L	N	NS	327000	-	358000	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	286000	-	246000	-	223000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	286000	-	246000	-	223000
Arsenic	ug/L	N	3	-	16.5J	-	17.9J	-	8.0J	-	8.3	-	14.1	-	6.4	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	7.8	-	15.4	-	6.0	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	17800	-	-	-	-	-	25600	-	22300	-	19500	-
Iron	ug/L	Y	300	-	16100	-	-	-	-	-	24300	-	22000	-	18500	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	-	-	-	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	5000U	-	10000U	-	-	-	-	-	5000U	-	11300	-	9800J
Sulfide	ug/L	N	NS	530U	-	530U	-	-	-	-	-	600U	-	600U	-	680U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134
			Sample Date	10/03/2002	10/03/2002	01/21/2003	01/21/2003	05/27/2004	05/27/2004	08/05/2004	03/10/2005	08/11/2005	03/07/2006	09/01/2006	03/13/2007
			Field Sample ID	M134A1X	M134A1Y	M134A2X	M134A2Y	040527MW-134	040527MW-134	M134A4	M134A5	M134A6	M134A7	M134A8	M134A9
			SDG	RFE24	RFE24	RFE58	RFE58	PHS01	PHS02	RFF19	RFF43	955073	980623	1004086	1029141
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	2.95	2.95	2.38	2.38	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-76	-76	35	35	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	134000	-	80300	90600	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	410U	410U	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	134000	-	80300	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	-	4.9U	-	14.9	-	5.6J	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	9.4U	-	-	-	-	-	-
Benzene	ug/L	N	1	-	8	-	6	2J	-	1J	0.5U	0.5U	0.7J	0.5U	1J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	20400	-	5150	-	32500	-	13100	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	19600	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	40U	-	40U	40U	40U	40U	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	15000U	-	15000U	4700J	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	530U	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134	MW-134
			Sample Date	02/25/2008	02/26/2008	02/17/2009	02/18/2009	03/10/2010	03/11/2010	04/25/2011	04/26/2011	06/06/2012	06/07/2012	05/20/2013	05/21/2013	06/24/2014
			Field Sample ID	M134B1	M134B1X	M134B2	M134B2X	M134B3	M134B3X	M134B4	M134B4X	M134B5	M134B5X	M134B6	M134B6X	M134B7
			SDG	1079048	1079048	1132740	1132740	RFS33	RFS33	RFT13	RFT13	RFU80	RFU80	RFZ61	RFZ61	CS117
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.61	-	6.66	-	1.14	-	0.4	-	1.43	1.5	6.77	6.62	6.37
DO	mg/L	N	NS	0.57	-	0	-	5.91	-	5.34	-	11.2	5.74	0.93	-0.02	0.95
ORP	millivolts	N	NS	-10	-	24	-	1	-	-80	-	-20	-39	-200	-189	-71
pH	pH Units	N	NS	6.63	-	6.64	-	6.26	-	6.79	-	7.74	6.18	7.07	6.87	6.48
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	117000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	117000	-
Arsenic	ug/L	N	3	10.0U	-	10.0U	-	7.2U	-	9.8U	-	5.1U	-	3.8	-	5.2
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	2.5	-	4.0
Benzene	ug/L	N	1	-	0.5J	-	0.5U	-	8	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	2160	-	6260
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	1030	-	5960
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	15700	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	830J	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-134	MW-134	MW-134	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135
			Sample Date	06/25/2014	02/22/2018	02/23/2018	10/03/2002	10/03/2002	01/21/2003	01/22/2003	09/24/2003	05/27/2004	05/27/2004	08/05/2004	03/10/2005
			Field Sample ID	M134B7X	M134C2	M134C2X	M135A1X	M135A1Y	M135A2X	M135A2Y	M135A3	040527MW-135	040527MW-135	M135A4	M135A5
			SDG	CS117	CS652	CS652	RFE24	RFE24	RFE58	RFE58	RFE87	PHS01	PHS02	RFF19	RFF43
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.47	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	0.44	-	-	0.84	0.84	1.01	-	-	-	-	-	-
ORP	millivolts	N	NS	-75	-	-	-93	-93	-68	-	-	-	-	-	-
pH	pH Units	N	NS	6.57	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	744000	-	741J	-	657000	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	410U	-	410U	-	410U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	124000	-	-	-	744000	-	741J	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	1700U	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	124000	-	90700	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	0.99J	-	9.9J	-	7.3J	-	5.9J	9.4U	-	7.7J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	9.4U	-	-
Benzene	ug/L	N	1	0.5J	-	0.8J	-	3J	-	38	8	47	-	20	110
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	5690	-	36400	-	58000	-	41700	33500	-	53300	-
Iron	ug/L	Y	300	-	5190	-	-	-	-	-	-	-	7970	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40.0U	40U	40U	-	40U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	13700	-	8900	-	75000U	-	7500U	-	75000U	-	-	-
Sulfide	ug/L	N	NS	600U	-	700U	-	-	-	-	-	5300U	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135
			Sample Date	08/11/2005	03/07/2006	09/01/2006	03/13/2007	02/25/2008	02/26/2008	02/17/2009	02/18/2009	03/10/2010	03/11/2010	04/25/2011	04/26/2011	06/06/2012
			Field Sample ID	M135A6	M135A7	M135A8	M135A9	M135B1	M135B1X	M135B2	M135B2X	M135B3	M135B3X	M135B4	M135B4X	M135B5
			SDG	955073	980623	1004086	1029141	1079048	1079048	1132740	1132740	RFS33	RFS33	RFT13	RFT13	RFU80
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	3.66	-	4.12	-	0.77	-	1.13	1.08	1.48
DO	mg/L	N	NS	-	-	-	-	2.08	-	0	-	4.34	-	6.81	3.48	15.2
ORP	millivolts	N	NS	-	-	-	-	-50	-	167	-	156	-	30	-10	-52
pH	pH Units	N	NS	-	-	-	-	6.33	-	6.47	-	5.96	-	6.24	6.24	7.92
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	10.0U	-	10.0U	-	7.2U	-	9.8U	-	5.1U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	10	91	5J	66	-	40	-	7	-	0.5U	-	5	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	40U	40U	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-135	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136
			Sample Date	06/07/2012	05/20/2013	05/21/2013	06/24/2014	06/25/2014	02/22/2018	02/23/2018	11/25/2002	11/26/2002	02/11/2003	02/11/2003	06/12/2003	08/29/2003
			Field Sample ID	M135B5X	M135B6	M135B6X	M135B7	M135B7X	M135C2	M135C2X	M136A1Y	M136A1X	M136A2X	M136A2Y	M136A3	M136A4
			SDG	RFU80	RFZ61	RFZ61	CS117	CS117	CS652	CS652	RFE42	RFE42	RFE64	RFE64	RFE76	RFE85
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.59	4.46	10.44	4.43	7.55	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	11.01	0.2	0.06	0.37	0.26	-	-	0.7	-	0.91	0.91	1.42	-
ORP	millivolts	N	NS	-218	-151	-160	-23	-54	-	-	-82	-	-68	-68	-70	-
pH	pH Units	N	NS	6.80	6.34	6.17	6.22	6.16	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	242000	-	848000	542000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	410U	-	410U	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	315000	-	304000	-	-	-	242000	-	848000	542000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	700U	-	1700U	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	315000	-	304000	-	280000	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	2.3	-	2.0	-	4.5	-	4.9U	-	4.9U	-	6.5J	4.9U
Arsenic	ug/L	Y	3	-	1.7J	-	1.6J	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	2J	-	2	-	22	-	0.5U	-	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	21800	-	13600	-	52400	-	48100	-	32200	-	88400	45600
Iron	ug/L	Y	300	-	9270	-	6170	-	51900	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	3400	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	40U	-	40U	-	40U	-	40U	40U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	25000U	-	12500U	-	24800	-	17100	-	51800	68800	-
Sulfide	ug/L	N	NS	-	-	600U	-	800J	-	820J	-	530U	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136
			Sample Date	10/06/2004	10/07/2004	06/09/2005	06/10/2005	11/02/2005	11/03/2005	11/13/2006	11/14/2006	05/24/2007	05/25/2007	11/29/2007	11/30/2007	06/30/2008
			Field Sample ID	M136A5	M136A5X	M136A6	M136A6X	M136A7	M136A7X	M136A9	M136A9X	M136B1	M136B1X	M136B2	M136B2X	M136B3
			SDG	RFF28	RFF28	947003	947003	965984	965984	1014239	1014239	1040018	1040018	1067672	1067672	1098780
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.59	-	4.65	-	4.5	-	-	-	-	-	-	-	4.55
DO	mg/L	N	NS	0.52	-	0.62	-	2.87	-	-	-	-	-	-	-	0.71
ORP	millivolts	N	NS	-120	-	-210	-	-196	-	-	-	-	-	-	-	-356
pH	pH Units	N	NS	6.49	-	6.71	-	7.31	-	-	-	-	-	-	-	7.79
Alkalinity to pH 4.5	ug/L	N	NS	-	277000	-	222000	-	325000	-	243000	-	228000	-	313000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	410U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	5.5J	-	22.4	-	12.2J	-	10U	-	10.0U	-	10.0U	-	10.2U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	71700J	-	110000	-	46000	-	9620	-	108000	-	10200	-	7340
Iron	ug/L	Y	300	58300J	-	110000	-	49900	-	3370	-	76300	-	3950	-	939
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	8800	-	3300J	-	11900	-	2800J	-	5400J	-	6800	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	530U	-	530U	-	600J	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136
			Sample Date	07/01/2008	10/13/2008	10/14/2008	06/23/2009	06/24/2009	11/16/2009	11/17/2009	05/10/2010	05/11/2010	10/05/2010	10/06/2010	06/02/2011
			Field Sample ID	M136B3X	M136B4	M136B4X	M136B5	M136B5X	M136B6	M136B6X	M136B7-100510	M136B7X-100511	M136B8	M136B8X	M136B9
			SDG	1098780	1114995	1114995	1150741	1150741	RFS20	RFS20	RFS42	RFS42	RFS69	RFS69	RFT27
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	4.7	-	4.04	-	4.24	-	1.78	1.55	0.4	0.03	0.26
DO	mg/L	N	NS	-	0	-	0	-	1.28	-	11.81	8.43	12.27	6.61	13.74
ORP	millivolts	N	NS	-	-113	-	-104	-	-271	-	-113	204	-318	-26	-280
pH	pH Units	N	NS	-	6.96	-	6.36	-	6.74	-	6.48	6.04	6.77	6.15	6.44
Alkalinity to pH 4.5	ug/L	N	NS	265000	-	581000	-	245000	-	286000	-	296000	-	262000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.2U	-	7.2U	-	7.2U	-	7.2U	-	9.8U	-	9.8U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	4630	-	99300	-	11800	-	61700	-	7430	-	-
Iron	ug/L	Y	300	-	251	-	84700	-	4980	-	59400	-	547	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	400U	-	79J	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	15200	-	35600	-	18700	-	18100	-	35500	-	35400	-
Sulfide	ug/L	N	NS	600J	-	7800	-	2900	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-136	MW-137	MW-137	MW-137	MW-137
			Sample Date	06/03/2011	02/13/2012	02/14/2012	03/04/2013	03/05/2013	06/02/2014	06/03/2014	09/29/2015	09/30/2015	10/23/2002	10/23/2002	02/26/2003	02/27/2003
			Field Sample ID	M136B9X	M136C1	M136C1X	M136C2	M136C2X	M136C3	M136C3X	M136C4	M136C4X	M137A1X	M137A1Y	M137A2X	M137A2Y
			SDG	RFT27	RFU10	RFU10	RFX90	RFX90	CS108	CS108	CS292	CS292	RFE34	RFE34	RFE65	RFE65
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0	-0.11	4.63	4.31	9.85	-	9.88	3.56	8.43	-	-	-	-
DO	mg/L	N	NS	11.28	12.43	9.98	4.62	0.29	1.11	1.63	0.8	5.46	0.91	0.91	5.38	-
ORP	millivolts	N	NS	-412	-162	-26	-285	-374	-412	-281	7	-258	-34	-34	-19	-
pH	pH Units	N	NS	6.65	6.84	6.78	6.78	6.83	6.85	6.75	6.29	6.87	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	115000	-	168000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410U	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	325000	-	271000	-	188000	-	115000	-	168000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	700U	-	700U	-	700U	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	325000	-	271000	-	188000	-	-	-	-
Arsenic	ug/L	N	3	-	5.1U	-	1.2J	-	1.1J	-	1.5U	-	12.6	-	4.9U	-
Arsenic	ug/L	Y	3	-	-	-	0.88J	-	0.95J	-	1.2U	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.6J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	66900	-	40500	-	9580	-	43000	-	8800	-
Iron	ug/L	Y	300	-	-	-	68500	-	33700	-	4720	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	400U	-	40U	-	480	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	134000	-	53400	-	594000	-	9000J	-	8300J
Sulfide	ug/L	N	NS	-	-	-	-	600U	-	600U	-	680U	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137
			Sample Date	09/03/2003	09/24/2004	05/26/2005	11/01/2005	05/31/2006	11/17/2006	06/08/2007	08/21/2008	08/22/2008	07/07/2009	07/08/2009	05/28/2010
			Field Sample ID	M137A3	M137A4	M137A5	M137A6X	M137A7	M137A8	M137A9	M137B1	M137B1X	M137B2	M137B2X	M137B3-100528
			SDG	RFE85	RFF25	RFF56	965566	991597	1014876	1041869	1106759	1106759	1152663	1152663	RFS44
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	4.5	-	3.01	-	1.52
DO	mg/L	N	NS	-	-	-	-	-	-	-	0	-	0	-	10.98
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-103	-	-1	-	-117
pH	pH Units	N	NS	-	-	-	-	-	-	-	6.74	-	6.88	-	6.53
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	6.0J	-	-	-	-	-	-	12.2J	-	7.2U	-	7.2U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5J	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	8760	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	40U	820	40U	46J	120	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137	MW-137
			Sample Date	05/28/2010	08/01/2011	08/02/2011	03/26/2012	03/26/2012	03/27/2012	03/27/2012	04/02/2013	04/03/2013	09/04/2014	09/05/2014	09/30/2015
			Field Sample ID	M137B3X-100528	M137B4	M137B4X	D0326121	M137B5	D0327121	M137B5X	M137B6	M137B6X	M137B7	M137B7X	M137B8
			SDG	RFS44	RFT49	RFT49	RFU30	RFU30	RFU30	RFU30	RFY52	RFY52	CS152	CS152	CS293
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.52	1.42	0.76	1.86	1.86	1.53	1.53	4.77	4.85	5	5.56	-
DO	mg/L	N	NS	10.98	12.26	6.08	11.01	11.01	4.57	4.57	1.13	0.23	1.1	-0.1	-
ORP	millivolts	N	NS	-117	-109	-54	-94	-94	1	1	-151	-190	151	148	-
pH	pH Units	N	NS	6.53	7.02	6.67	7.26	7.26	6.43	6.43	7.01	6.99	6.81	6.45	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	118000	-	144000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	118000	-	144000	-
Arsenic	ug/L	N	3	-	5.2J	-	5.1U	5.1U	-	-	1.3J	-	1.2U	-	0.96J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	0.82J	-	7.2	-	1.1J
Benzene	ug/L	N	1	0.5U	-	0.5U	-	-	0.5U	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	11400	-	35100	-	1680
Iron	ug/L	Y	300	-	-	-	-	-	-	-	10300	-	33200	-	5650
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	5000U	-	15100	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	600U	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-137	MW-137	MW-137	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138
			Sample Date	10/01/2015	02/26/2018	02/27/2018	10/23/2002	10/23/2002	03/03/2003	03/03/2003	09/03/2003	09/24/2004	05/26/2005	10/28/2005	06/15/2006	12/01/2006
			Field Sample ID	M137B8X	M137C2	M137C2X	M138A1X	M138A1Y	M138A2X	M138A2Y	M138A3	M138A4	M138A5	M138A6X	M138A7	M138A8
			SDG	CS293	CS653	CS653	RFE34	RFE34	RFE66	RFE66	RFE85	RFF25	RFF56	965244	993798	1016343
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	1.63	1.63	1.54	1.54	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-20	-20	-89	-89	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	265000	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	410U	-	410U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	169000	-	-	-	265000	-	307000	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	1700U	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	169000	-	108000	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	1.8J	-	7.9J	-	6.4J	-	6.1J	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	230	-	14100	-	4700	-	10300	-	-	-	-	-
Iron	ug/L	Y	300	-	80.5U	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	79J	-	40U	-	40U	-	-	40U	40U	40U	40U	40U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	39000	-	6600	-	53000	-	15000U	-	-	-	-	-	-
Sulfide	ug/L	N	NS	680U	-	700U	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138	MW-138
			Sample Date	06/08/2007	08/20/2008	08/21/2008	06/17/2010	06/18/2010	08/01/2011	08/02/2011	03/21/2012	03/22/2012	04/02/2013	04/03/2013	09/08/2014
			Field Sample ID	M138A9	M138B1	M138B1X	M138B2-100617	M138B2X-100618	M138B3	M138B3X	M138B4	M138B4X	M138B5	M138B5X	M138B6
			SDG	1041869	1106580	1106580	RFS47	RFS47	RFT49	RFT49	RFU28	RFU28	RFY52	RFY52	CS153
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	6.79	-	4.35	1.01	1.51	0.78	30.71	3.6	6.13	8.11	5.95
DO	mg/L	N	NS	-	0	-	0	5.12	14.95	9.55	13.63	8.51	2.41	1.93	0.18
ORP	millivolts	N	NS	-	-116	-	-129	-74	-80	-79	-75	-36	-203	-153	151
pH	pH Units	N	NS	-	7.00	-	7.31	7.19	7.00	6.94	7.38	6.56	7.09	7.14	7.03
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	255000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	255000	-
Arsenic	ug/L	N	3	-	10.2U	-	9.8U	-	5.1U	-	5.1U	-	0.79J	-	3.3
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	0.40U	-	3.2
Benzene	ug/L	N	1	0.8J	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	5240	-	-	-	-	-	-	-	1500	-	6860
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	80.5J	-	6460
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	2500U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-138	MW-138	MW-138	MW-138	MW-138	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139
			Sample Date	09/09/2014	09/30/2015	10/01/2015	02/26/2018	02/27/2018	10/24/2002	10/24/2002	03/27/2003	03/27/2003	09/11/2003	09/23/2004	09/24/2004	05/25/2005
			Field Sample ID	M138B6X	M138B7	M138B7X	M138C1	M138C1X	M139A1X	M139A1Y	M139A2X	M139A2Y	M139A3	M139A4	M139A4X	M139A5
			SDG	CS153	CS293	CS293	CS653	CS653	RFE35	RFE35	RFE68	RFE68	RFE86	RFF25	RFF25	RFF55
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.09	-	3.98	-	-	-	-	-	-	-	-	-	8.16
DO	mg/L	N	NS	-	-	5.48	-	-	1.35	1.35	1.4	1.4	-	-	-	0
ORP	millivolts	N	NS	-	-	-38	-	-	-75	-75	-97	-97	-	-	-	-138
pH	pH Units	N	NS	-	-	6.95	-	-	-	-	-	-	-	-	-	6.79
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	257000	305000	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	410U	410U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	192000	-	116000	-	-	-	257000	305000	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	1700U	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	192000	-	116000	-	120000	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	1.4J	-	0.73J	-	10.0	-	-	6.0J	4.9U	7.0J	-	9.3U
Arsenic	ug/L	Y	3	-	1.4J	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	457	-	400	-	28600	-	-	35200	35300	-	-	-
Iron	ug/L	Y	300	-	139J	-	80.5U	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	40U	-	40U	-	2600	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	251000	-	427000	-	31400	-	7500U	7500U	-	-	-	-	-
Sulfide	ug/L	N	NS	600U	-	680U	-	700U	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139
			Sample Date	05/26/2005	10/31/2005	11/01/2005	06/14/2006	06/15/2006	12/11/2006	12/12/2006	06/07/2007	06/08/2007	08/20/2008	08/21/2008	07/07/2009	07/08/2009
			Field Sample ID	M139A5X	M139A6	M139A6X	M139A7	M139A7X	M139A8	M139A8X	M139A9	M139A9X	M139B1	M139B1X	M139B2	M139B2X
			SDG	RFF56	965566	965566	993798	993798	1017858	1017858	1041869	1041869	1106580	1106580	1152663	1152663
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	8.07	-	-	-	-	-	-	-	8.35	-	8.07	-
DO	mg/L	N	NS	-	0	-	-	-	-	-	-	-	0	-	0	-
ORP	millivolts	N	NS	-	-164	-	-	-	-	-	-	-	-111	-	-104	-
pH	pH Units	N	NS	-	6.55	-	-	-	-	-	-	-	6.59	-	6.31	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.3U	-	10U	-	10U	-	10.0U	-	13.2J	-	7.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	1J	-	0.5U	-	0.6J	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139	MW-139
			Sample Date	05/28/2010	05/28/2010	08/03/2011	08/04/2011	03/21/2012	03/22/2012	04/02/2013	04/03/2013	09/08/2014	09/09/2014	04/15/2015	04/16/2015
			Field Sample ID	M139B3-100528	M139B3X-100528	M139B4	M139B4X	M139B5	M139B5X	M139B6	M139B6X	M139B7	M139B7X	M139B8	M139B8X
			SDG	RFS44	RFS44	RFT50	RFT50	RFU28	RFU28	RFY52	RFY52	CS153	CS153	CS221	CS221
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0	0	1.83	1.83	4.17	0.33	8.31	8.3	8.26	8.2	8.21	8.25
DO	mg/L	N	NS	8.02	8.02	8.31	8.13	8.23	8.22	-0.49	0.26	0.74	0.03	2.02	-1.43
ORP	millivolts	N	NS	-114	-114	-48	-55	-9	-57	-219	-167	114	-414	-129	-144
pH	pH Units	N	NS	6.38	6.38	6.71	6.50	6.94	6.36	6.55	6.63	6.75	6.48	6.65	6.61
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	206000	-	198000	-	252000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	206000	-	198000	-	252000
Arsenic	ug/L	N	3	7.2U	-	5.1U	-	5.1U	-	5.5	-	2.8	-	1.9J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	5.2	-	2.4	-	1.9J	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	6140	-	31200	-	73900	-
Iron	ug/L	Y	300	-	-	-	-	-	-	5950	-	30400	-	75000	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	16700	-	10000U	-	10000U
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	600U	-	1400J	-	2100

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-139	MW-139	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140
			Sample Date	02/26/2018	02/27/2018	10/23/2002	10/23/2002	03/03/2003	03/04/2003	09/10/2003	09/24/2004	06/02/2005	10/28/2005	06/23/2006	12/05/2006	05/22/2007
			Field Sample ID	M139C2	M139C2X	M140A1X	M140A1Y	M140A2X	M140A2Y	M140A3	M140A4	M140A5	M140A6X	M140A7	M140A8	M140A9
			SDG	CS653	CS653	RFE34	RFE34	RFE66	RFE66	RFE86	RFF25	RFF57	965244	994921	1016740	1039430
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	1.98	1.98	1.24	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-16	-16	-78	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	211000	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	410U	-	-	410U	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	211000	-	-	285000	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	1700U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	219000	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	0.83J	-	-	8.0J	4.9U	-	16.8	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	13100	-	-	18400	13000	-	19100	-	-	-	-	-	-
Iron	ug/L	Y	300	13100	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	40U	-	-	-	40U	40U	40U	40U	40U	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	1000U	7500U	-	-	10500	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	700U	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140	MW-140	MW-211	MW-211	MW-211	MW-211
			Sample Date	08/20/2008	08/21/2008	06/09/2009	04/29/2010	06/28/2011	03/29/2012	04/03/2013	09/09/2014	02/27/2018	10/30/2008	05/19/2009	05/19/2009	11/23/2009
			Field Sample ID	M140B1	M140B1X	M140B2X	M140B3X	M140B4X	M140B5X	M140B6X	M140B7X	M140C2	M211A9X	M211B1	M211B1X	M211B2
			SDG	1106580	1106580	1148434	RFS40	RFT37	RFU34	RFY52	CS153	CS653	1117661	1145500	1145500	1172674
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.4	-	-	-	0.37	0.25	-	6.91	-	-	2.52	2.52	3.21
DO	mg/L	N	NS	0	-	-	-	6.1	6.52	-	-0.03	-	-	0.42	0.42	0.94
ORP	millivolts	N	NS	-125	-	-	-	-80	-36	-	-487	-	-	-128	-128	-46
pH	pH Units	N	NS	6.89	-	-	-	6.93	7.04	-	6.91	-	-	6.77	6.77	6.71
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	710000	-	1360000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.2U	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	29100	-	26100
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	29200	-	3880
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	40U	-	690J	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	2500U	-	125000U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	530U	-	20300	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-154	MW-154	MW-154	MW-211	MW-211
			Sample Date	11/24/2009	06/07/2010	06/08/2010	09/22/2010	09/23/2010	06/16/2011	03/14/2012	10/17/2002	10/17/2002	10/17/2002	06/26/2013	06/26/2013
			Field Sample ID	M211B2X	M211B3-100607	M211B3X-100608	M211B4	M211B4X	M211B5X	M211B6X	M154A1X	M154A1X	M154A1Y	M211B7	M211B7X
			SDG	1172674	RFS46	RFS46	RFS68	RFS68	RFT33	RFU20	RFE32	RFE33	RFE33	CP018	CP018
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	2.36	2.19	-	-	3.18	-	-	-	-	10	10
DO	mg/L	N	NS	-	1.14	0	-	-	0.8	-	1.4	1.4	1.4	0.99	0.99
ORP	millivolts	N	NS	-	-127	-123	-	-	-1	-	25	25	25	-115	-115
pH	pH Units	N	NS	-	6.9	6.65	-	-	6.81	-	-	-	-	6.94	6.94
Alkalinity to pH 4.5	ug/L	N	NS	691000	-	600000	-	630000	-	-	-	-	378000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	-	-	-	410U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	378000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	4.9U	-	10.2	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	6.7	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	-	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	18700	-	6650	-	-	-	-	17100	-	29800	-
Iron	ug/L	Y	300	-	9540	-	798	-	-	-	-	-	-	20500	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	-	-	-	40U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	2500U	-	2500U	-	2500U	-	-	-	-	6000U	-	1500U
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	-	530U	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-154	MW-154	MW-154	MW-154	MW-154
			Sample Date	05/22/2014	07/01/2014	07/02/2014	08/05/2014	08/05/2014	09/26/2014	10/30/2014	03/12/2015	01/30/2003	01/31/2003	09/11/2003	07/29/2008	07/30/2008
			Field Sample ID	M211B8	M211B9	M211B9X	M211C1	M211C1X	M211C2	M211C3	M211C4	M154A2Y	M154A2X	M154A3	M154A4	M154A4X
			SDG	CS103	CP396	CP401	CP466	CP466	CS162	CS179	CP667	RFE62	RFE62	RFE86	1103086	1103086
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.95	12.52	11.9	15.11	15.11	12.85	13.04	13.13	-	-	-	5.45	-
DO	mg/L	N	NS	1.46	0.58	2.79	1.36	1.36	0.22	1.77	4.57	2.41	-	-	0.62	-
ORP	millivolts	N	NS	-199	-128.2	-45.2	-91.1	-91.1	-30	-182	18	34	-	-	-84	-
pH	pH Units	N	NS	6.79	6.96	6.57	6.63	6.63	6.94	6.8	6.36	-	-	-	5.99	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	381000	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	410U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	381000	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	17.1	10.2	-	12.4	-	23.1	19.4	2.2	8.4J	-	7.2J	10.2U	-
Arsenic	ug/L	Y	3	-	7.4	-	9.7	-	-	-	1.5J	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5UJ	0.5U	0.5U	-	-	0.5U	0.5U	-	3U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	71500	42000	-	16600	-	39900	44500	7570	65100	-	93300	-	-
Iron	ug/L	Y	300	-	37000	-	11200	-	-	-	6050	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	40U	40U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	45800	-	46000	-	-	-	-	13200	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154
			Sample Date	11/10/2008	11/11/2008	06/08/2009	06/09/2009	11/18/2009	11/19/2009	06/15/2010	06/15/2010	09/29/2010	09/29/2010	08/03/2011	08/04/2011
			Field Sample ID	M154A5	M154A5X	M154A6	M154A6X	M154A7	M154A7X	M154A8-100615	M154A8X-100615	M154A9	M154A9X	M154B1	M154B1X
			SDG	1119533	1119533	1148434	1148434	1171988	1171988	RFS47	RFS47	RFS69	RFS69	RFT50	RFT50
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.94	-	5.51	-	6.02	-	4.11	4.11	3.28	3.28	1.98	1.86
DO	mg/L	N	NS	0	-	0.15	-	1.23	-	13.04	13.04	11.21	11.21	14.63	7.1
ORP	millivolts	N	NS	-46	-	-84	-	-25	-	-75	-75	-87	-87	-22	-44
pH	pH Units	N	NS	6.33	-	5.97	-	5.79	-	6.52	6.52	6.00	6.00	6.26	6.41
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.0U	-	7.2U	-	7.2U	-	9.8U	-	9.8U	-	5.1U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-211	MW-211	MW-211	MW-211	MW-211
			Sample Date	11/21/2011	11/22/2011	03/26/2012	03/27/2012	08/15/2012	08/16/2012	04/03/2013	04/04/2013	03/12/2015	03/24/2015	06/08/2015	09/16/2015	11/16/2015
			Field Sample ID	M154B2	M154B2X	M154B3	M154B3X	M154B4	M154B4X	M154B5	M154B5X	M211C4X	M211C5	M211C6	M211C7	M211C8
			SDG	RFT88	RFT88	RFU30	RFU30	RFV29	RFV29	RFY53	RFY53	CP667	CS212	CS248	CS285	CS316
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.24	4.59	1.68	1.93	4.5	4.62	6.6	7.75	13.13	10.5	-	23.55	-
DO	mg/L	N	NS	15.25	7.72	11.71	7.24	9.36	6.57	3.17	2.37	4.57	7.16	-	3.1	1.32
ORP	millivolts	N	NS	-20	-33	-40	35	-99	-72	-87	-118	18	-61	-	-74	-172
pH	pH Units	N	NS	6.43	6.34	6.37	6.04	6.28	6.13	6.23	6.30	6.36	6.79	-	6.84	6.63
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	700U	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	148000	-	234000	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	148000	-	234000	-	-	-	-	-
Arsenic	ug/L	N	3	5.1U	-	5.1U	-	0.91J	-	0.81J	-	-	6.4J	9.1	14.8	15.8
Arsenic	ug/L	Y	3	-	-	-	-	1.0J	-	0.62J	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.6J	0.5U	0.5U	0.5U	3U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	68100	-	38900	-	-	23800	55400	57100	44100
Iron	ug/L	Y	300	-	-	-	-	60700	-	31300	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	40U	-	40U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	12500U	-	5000U	57200	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	800J	-	600U	680U	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-154	MW-154	MW-154	MW-154	MW-154	MW-154	MW-211
			Sample Date	12/10/2015	12/17/2015	01/14/2016	04/08/2016	07/22/2016	12/08/2016	09/19/2013	10/29/2013	03/27/2014	03/28/2014	11/12/2014	11/13/2014	01/19/2017
			Field Sample ID	M211C9	M211C9X	M211D1	M211D2	M211D3	M211D4	M154B6	M154B7X	M154B8	M154B8X	M154B9	M154B9X	M211D5
			SDG	CP958	CP978	CS343	CS383	CS434	CS492	CS013	CS034	CS078	CS078	CS185	CS185	CS501
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	22.07	21.36	-	7.08	6.12	6.91	6.26	8.35	6.36	7.19	-
DO	mg/L	N	NS	-	-	6.73	4.14	1.26	0.2	0.54	0.14	2.75	1.83	2.08	16.08	8.03
ORP	millivolts	N	NS	-	-	-64	-97	-110	-142	-368	-235	-311	-298	-207	265	-64
pH	pH Units	N	NS	-	-	6.92	6.66	6.88	6.96	6.21	6.00	6.10	6.37	6.09	6.97	6.89
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	174000	-	262000	-	276000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	174000	-	262000	-	276000	-
Arsenic	ug/L	N	3	14.2	-	15.4	11.3	10.2	4.4	0.92J	-	3.7	-	1.1J	-	3.9
Arsenic	ug/L	Y	3	12.5	-	-	-	-	2.0	0.92J	-	0.78U	-	1.1U	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	1U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	43900	-	50000	60400	54400	18300	29800	-	7860	-	13900	-	13800
Iron	ug/L	Y	300	43600	-	-	-	-	1610	18600	-	3910	-	9870	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	25900	-	-	-	10000U	-	25000U	-	10000U	-	5000U	-
Sulfide	ug/L	N	NS	-	680U	-	-	-	-	-	600U	-	600U	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-211	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R
			Sample Date	04/18/2017	07/26/2013	07/26/2013	07/03/2014	07/03/2014	08/01/2014	08/01/2014	08/29/2014	01/16/2015	01/16/2015	09/18/2015	11/19/2015	12/10/2015
			Field Sample ID	M211D6	M234RA1	M234RA1X	M234RA2	M234RA2X	M234RA3	M234RA3X	M234RA4X	M234RA5	M234RA5X	M234RA6	M234RA7	M234RA8
			SDG	CS545	CP054	CP054	CP404	CP404	CP441	CP441	CS149	CP644	CP644	CS287	CS319	CP958
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	4.74	4.74	6.04	6.04	5.47	5.47	4.01	6.05	6.05	5.19	3.52	-
DO	mg/L	N	NS	-	0	0	1.68	1.68	0.16	0.16	0.27	3.7	3.7	3.46	4.32	-
ORP	millivolts	N	NS	-	-99.3	-99.3	-114.8	-114.8	-143.2	-143.2	172	-26.8	-26.8	-100	-116	-
pH	pH Units	N	NS	-	6.85	6.85	7.04	7.04	6.62	6.62	6.86	7.24	7.24	7.15	7.16	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	3.5	4.4	-	45.7	-	34.3	-	-	17.7	-	26.7	9.9	10.4
Arsenic	ug/L	Y	3	-	4.5	-	41.3	-	30.3	-	-	8.6	-	-	-	8.7
Benzene	ug/L	N	1	0.5U	-	36	-	43	-	45J	57	-	47	28	53	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	29100	23000	-	26200	-	28200	-	-	29500	-	35400	18300	15600
Iron	ug/L	Y	300	-	17000	-	24500	-	25200	-	-	26000	-	-	-	12700
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	111000	-	36200	-	3600J	-	-	16400	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	600U	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-154	MW-154	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
			Sample Date	12/15/2015	01/13/2016	04/14/2016	07/25/2016	12/06/2016	04/15/2015	04/16/2015	12/04/2002	12/05/2002	02/03/2003	02/04/2003	09/29/2003	05/27/2004
			Field Sample ID	M234RA8X	M234RA9	M234RB1	M234RB2	M234RB3	M154C1	M154C1X	M158A1Y	M158A1X	M158A2Y	M158A2X	M158A3	040527MW-158
			SDG	CP969	CS342	CS386	CS435	CS491	CS221	CS221	RFE43	RFE45	RFE62	RFE62	RFE87	PHS01
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.58	3.37	3.6	-	-	6.72	6.95	-	-	-	-	-	-
DO	mg/L	N	NS	1.85	5.05	9.42	0.76	-	-0.7	2.45	0.89	-	0.82	-	-	-
ORP	millivolts	N	NS	-74	57	-89	-135	-	-20	-92	180	-	-104	-	-	-
pH	pH Units	N	NS	6.98	7.58	6.99	6.99	-	6.05	6.39	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	2630000	-	2380000	-	3140000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	410U	-	410U	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	137000	-	2630000	-	2380000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	700U	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	137000	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.4	7.2	15.9	7.5	0.82U	-	7.3J	-	13	-	8.5J	15.4
Arsenic	ug/L	Y	3	-	-	-	-	7.4	0.82U	-	-	-	-	-	-	-
Benzene	ug/L	N	1	54	50	64	89	140	-	0.5U	-	0.5U	-	0.5U	0.5U	3U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	23400	26400	32100	24300	4610	-	837	-	73400	-	92600	124000
Iron	ug/L	Y	300	-	-	-	-	23500	3690	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	40U	-	40U	-	40U	400U	200U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	68800	-	-	-	10000U	-	5000U	-	232000	-	284000	-	43200
Sulfide	ug/L	N	NS	680U	-	-	-	-	-	680U	-	-	-	-	-	1300J

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
			Sample Date	05/27/2004	08/09/2004	03/10/2005	08/11/2005	03/07/2006	09/01/2006	03/13/2007	09/21/2007	03/03/2008	03/04/2008	09/29/2008	09/30/2008	02/17/2009
			Field Sample ID	040527MW-158	MW158A4	M158A5	M158A6	M158A7	M158A8	M158A9	M158B1	M158B2	M158B2X	M158B3	M158B3X	M158B4
			SDG	PHS02	RFF18	RFF43	955073	980623	1004086	1029141	1057469	1080011	1080011	1112628	1112628	1132740
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	3.54	-	3.55	-	3.7
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	0	-	0	-	0
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-109	-	-140	-	-83
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	6.81	-	6.85	-	7.03
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	11.1	-	-	-	-	-	-	10.0U	-	10.2U	-	10.0U
Arsenic	ug/L	Y	3	10.4	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	0.5U	0.5U	1U	0.5U	3U	-	3U	-	5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	9690	-	-	-	-	-	-	-	-	-	-	95300
Iron	ug/L	Y	300	122000	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	1000U	40U	40U	40U	40U	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-234R	MW-234R	MW-234R	MW-234R	MW-241
			Sample Date	02/18/2009	10/12/2009	10/13/2009	03/10/2010	03/11/2010	08/17/2010	08/18/2010	04/25/2011	01/23/2017	03/22/2017	04/28/2017	05/17/2017	12/06/2006
			Field Sample ID	M158B4X	M158B5	M158B5X	M158B6	M158B6X	M158B7	M158B7X	M158B8	M234RB4	M234RB6X	M234RB7	M234RB8X	M241A1
			SDG	1132740	1166229	1166229	RFS33	RFS33	RFS64	RFS64	RFT13	CS503	CQ561	CS552	CQ641	1017222
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	4.36	-	2.01	-	2.91	0.52	1.13	2.82	3.22	2.82	-	-
DO	mg/L	N	NS	-	0	-	4.14	-	0	7.78	6.59	4.05	7.56	4.48	-	-
ORP	millivolts	N	NS	-	-52	-	-68	-	-154	-40	-70	-119	-108	-86	-	-
pH	pH Units	N	NS	-	6.50	-	6.60	-	10.19	8.65	6.52	6.79	6.39	7.08	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	7.2U	-	7.2U	-	9.8U	-	49.0U	17.7J	-	9.8	-	10U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	3U	-	0.5U	-	0.5U	-	140	110	110	120	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	16300	-	35900	-	35400	-	252000	52800	-	29700	-	31700
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158
			Sample Date	12/07/2006	05/15/2007	05/16/2007	12/05/2007	12/06/2007	08/14/2008	04/26/2011	09/21/2011	09/22/2011	06/06/2012	06/07/2012	09/04/2012	09/05/2012
			Field Sample ID	M241A1X	M241A2	M241A2X	M241A3	M241A3X	M241A4	M158B8X	M158B9	M158B9X	M158C1	M158C1X	M158C2	M158C2X
			SDG	1017222	1038619	1038619	1068622	1068622	1105739	RFT13	RFT71	RFT71	RFU80	RFU80	RFV35	RFV35
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	7.3	-	3.4	6.08	1.07	2.25	6.65	2.21
DO	mg/L	N	NS	-	-	-	-	-	0	-	7.86	12.7	13.81	10.29	13.82	11.55
ORP	millivolts	N	NS	-	-	-	-	-	-143	-	-84	112	-105	-65	-183	-34
pH	pH Units	N	NS	-	-	-	-	-	6.72	-	6.74	6.81	7.78	6.99	7.28	7.11
Alkalinity to pH 4.5	ug/L	N	NS	-	-	336000	-	379000	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	460U	-	460U	-	-	-	-	-	-	-	700U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	2220000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	2220000
Arsenic	ug/L	N	3	-	-	-	10.0U	-	10.2U	-	5.8J	-	5.1U	-	4.9	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	5.4	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	1J	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	39200	-	29900	-	29700	-	35900	-	60200	-	31800	-
Iron	ug/L	Y	300	-	40100	-	29000	-	29800	-	-	-	-	-	30800	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	40U	-	-	-	-	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	10000U	-	5000U	-	-	-	-	-	-	-	85400
Sulfide	ug/L	N	NS	-	-	530U	-	1500J	-	-	-	-	-	-	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-158	MW-159	MW-159	MW-159
			Sample Date	05/20/2013	05/21/2013	10/01/2013	10/02/2013	06/24/2014	06/25/2014	11/05/2014	11/06/2014	07/14/2015	07/15/2015	12/04/2002	12/04/2002	03/04/2003
			Field Sample ID	M158C3	M158C3X	M158C4	M158C4X	M158C5	M158C5X	M158C6	M158C6X	M158C7	M158C7X	M159A1X	M159A1Y	M159A2X
			SDG	RFZ61	RFZ61	CS020	CS020	CS117	CS117	CS182	CS182	CS261	CS261	RFE43	RFE43	RFE66
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.48	11.7	-	-	-	9.08	-	11.53	4.02	13.94	-	-	-
DO	mg/L	N	NS	0.95	-0.52	-	-	0.48	0.25	-0.55	0	0.35	3.73	1.03	1.03	0.76
ORP	millivolts	N	NS	-183	-184	-	-	-119	-114	-132	-50	-119	-370	-126	-126	-29
pH	pH Units	N	NS	6.93	6.90	-	-	6.66	6.61	6.74	6.74	6.56	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	194000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	2000000	-	2000000	-	1200000	-	1740000	-	1540000	-	194000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	700U	-	700U	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	2000000	-	2000000	-	1200000	-	1740000	-	1540000	-	-	-
Arsenic	ug/L	N	3	2.6	-	5.4	-	4.6	-	2.4	-	3.8J	-	10.9	-	6.2J
Arsenic	ug/L	Y	3	2.2	-	4.8	-	3.8	-	1.9J	-	2.8	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	3UJ	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	50400	-	54700	-	80100	-	8590	-	51100	-	8350	-	5500
Iron	ug/L	Y	300	46900	-	53600	-	79400	-	3860	-	43500	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	120	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	37000	-	10000U	-	12500U	-	83100	-	36200	-	1500U	-
Sulfide	ug/L	N	NS	-	730J	-	2200	-	600U	-	600U	-	2200	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159	MW-159
			Sample Date	03/04/2003	09/23/2004	05/27/2005	10/27/2005	05/31/2006	11/30/2006	05/18/2007	05/18/2007	12/12/2007	08/18/2008	08/19/2008	07/09/2009	07/10/2009
			Field Sample ID	M159A2Y	M159A3	M159A4	M159A5X	M159A6	M159A7	D0518072	M159A8	M159A9	M159B1	M159B1X	M159B2	M159B2X
			SDG	RFE66	RFF25	RFF56	965062	991597	1016155	1039073	1039073	1069481	1106131	1106131	1153027	1153027
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	2.6	-	2.49	-
DO	mg/L	N	NS	0.76	-	-	-	-	-	-	-	-	0	-	0	-
ORP	millivolts	N	NS	-29	-	-	-	-	-	-	-	-	-108	-	-90	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	6.70	-	6.11	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	178000	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	13.0J	-	7.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	40U	51J	40U	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	21400	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-159	MW-159	MW-159	MW-159	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164
			Sample Date	08/01/2011	08/02/2011	09/10/2014	09/11/2014	04/17/2003	04/17/2003	10/01/2003	10/01/2003	09/21/2004	05/24/2005	10/25/2005	05/23/2006	11/02/2006
			Field Sample ID	M159B3	M159B3X	M159B4	M159B4X	M164A1X	M164A1Y	M164A2	M164A2	M164A3	M164A4	M164A5	M164A6	M164A7
			SDG	RFT49	RFT49	CS154	CS154	RFE71	RFE71	RFE87	RFE88	RFF24	RFF55	964663	990703	1012673
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.12	1.15	2.55	2.6	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	5.74	2.46	0.65	0.53	0.99	0.99	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-61	-82	183	-340	-52	-52	-	-	-	-	-	-	-
pH	pH Units	N	NS	6.98	6.82	6.95	6.67	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	262000	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	410U	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	346000	-	262000	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	700U	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	346000	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	6.6J	-	34.0	-	4.9U	-	8.0J	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	6.7	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	61700	-	2200	-	1850	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	55000	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	0.040U	-	40U	40U	40U	40U	40U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	10000U	-	108000	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	600U	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164
			Sample Date	05/17/2007	06/16/2008	06/17/2008	11/12/2008	11/13/2008	05/06/2009	05/07/2009	11/18/2009	11/19/2009	06/03/2010	06/04/2010	10/07/2010
			Field Sample ID	M164A8X	M164A9	M164A9x	M164B1	M164B1X	M164B2	M164B2X	M164B3	M164B3X	M164B4-100603	M164B4X-100604	M164B5
			SDG	1038811	1096529	1096530	1120044	1120044	1143853	1143853	1171988	1171988	RFS46	RFS46	RFS72
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	6.86	-	6.56	-	4.48	-	6.34	-	4.04	0	3.9
DO	mg/L	N	NS	-	0.59	-	0	-	3.4	-	1.39	-	11.75	8.72	13.52
ORP	millivolts	N	NS	-	-18	-	69	-	66	-	58	-	-82	-103	-90
pH	pH Units	N	NS	-	6.83	-	6.73	-	5.48	-	6.46	-	6.77	6.65	6.80
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.2U	-	10.0U	-	10.0U	-	7.2U	-	7.2U	-	9.8U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.9J	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164
			Sample Date	10/08/2010	08/17/2011	08/18/2011	11/21/2011	11/22/2011	03/19/2012	03/20/2012	08/13/2012	08/14/2012	02/21/2013	02/22/2013	09/19/2013	10/29/2013
			Field Sample ID	M164B5X	M164B6	M164B6X	M164B7	M164B7X	M164B8	M164B8X	M164B9	M164B9X	M164C1	M164C1X	M164C2	M164C2X
			SDG	RFS72	RFT60	RFT60	RFT88	RFT88	RFU25	RFU25	RFV28	RFV28	RFX74	RFX74	CS013	CS034
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0	0.45	3.84	3.6	2.82	-0.38	0.38	3.08	5.75	5.52	9.92	6.96	-
DO	mg/L	N	NS	9.52	14.89	9.13	12.81	8.43	13.74	9.65	14.81	8.5	7.65	1.32	0.74	-
ORP	millivolts	N	NS	-124	-138	-33	199	-30	-49	-120	-210	-220	-168	-281	-242	-
pH	pH Units	N	NS	6.49	6.53	6.99	6.84	6.76	7.22	6.62	10.37	6.82	6.96	6.87	6.86	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	700U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	245000	-	234000	-	248000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	245000	-	234000	-	248000
Arsenic	ug/L	N	3	-	5.1U	-	5.1U	-	5.1U	-	0.40U	-	0.94J	-	0.42U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	0.40U	-	0.58J	-	0.42U	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	602	-	402	-	649	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	498	-	33.3U	-	585	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	101000	-	114000	-	90100
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	600U	-	600U	-	1100J

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164	MW-164
			Sample Date	04/02/2014	04/03/2014	12/11/2014	12/12/2014	06/26/2015	06/26/2015	09/13/2017	09/14/2017	12/14/2017	12/15/2017	03/14/2018	03/30/2018	03/30/2018
			Field Sample ID	M164C3	M164C3X	M164C4	M164C4X	M164C5	M164C5X	M164D1	M164D1X	M164D2	M164D2X	M164D3X	M164D4	M164D4X
			SDG	CS080	CS080	CS192	CS192	CS255	CS255	CS603	CS603	CS627	CS627	CR001	CR014	CR014
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	6.17	5.46	9.51	-	-	6.43	10.88	5.43	10.34	-	-	-
DO	mg/L	N	NS	5.69	3.97	1.59	0.2	1.14	1.14	0.53	4.11	2.4	5.43	-	-	-
ORP	millivolts	N	NS	-298	24	-203	-333	-104	-104	-57	-95	-32	-33	-	-	-
pH	pH Units	N	NS	6.86	6.93	6.91	6.81	6.77	6.77	6.81	7.31	7.77	8.21	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	207000	-	240000	-	247000	-	257000	-	-	-	-	199000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	-	-	700U	-	1700U	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	207000	-	240000	-	247000	-	257000	-	-	-	-	199000
Arsenic	ug/L	N	3	0.78U	-	0.82U	-	0.82U	-	0.72U	-	1.0J	-	-	0.72U	-
Arsenic	ug/L	Y	3	0.78U	-	0.82U	-	0.82U	-	0.72U	-	0.72U	-	-	0.72U	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	344	-	174J	-	1040	-	167J	-	678	-	-	80.5U	-
Iron	ug/L	Y	300	43.0U	-	33.4U	-	1080	-	117J	-	80.5U	-	-	80.5U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	-	-	-	300
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	58300	-	115000	-	151000	-	95400	-	-	-	-	180000
Sulfide	ug/L	N	NS	-	600U	-	1100J	-	2900	-	2100	-	-	-	-	700U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-165	MW-165	MW-165	MW-165	MW-165	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166
			Sample Date	04/11/2003	04/11/2003	09/30/2003	09/21/2004	05/24/2005	04/11/2003	04/11/2003	09/29/2003	09/21/2004	05/24/2005	10/25/2005	05/24/2006	11/02/2006
			Field Sample ID	M165A1X	M165A1Y	M165A2	M165A3	M165A4	M166A1X	M166A1Y	M166A2	M166A3	M166A4	M166A5	M166A6	M166A7
			SDG	RFE70	RFE70	RFE87	RFF24	RFF55	RFE70	RFE70	RFE87	RFF24	RFF55	964663	990907	1012673
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	1.73	1.73	-	-	-	1.29	1.29	-	-	-	-	-	-
ORP	millivolts	N	NS	-17	-17	-	-	-	-39	-39	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	958000	-	-	-	-	496000	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	410U	-	-	-	-	410U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	958000	-	-	-	-	496000	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	-	12.6	-	-	4.9U	-	14.8	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	1J	1J	2J	0.7J	-	0.5U	0.5U	3U	3U	0.5U	0.5U	5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	16700	-	45300	-	-	73300	-	155000	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	400U	40U	40U	-	40U	400U	400U	200U	40U	-	400U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	7500U	-	-	-	-	401000	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166
			Sample Date	05/17/2007	12/04/2007	06/23/2008	06/24/2008	11/12/2008	11/13/2008	05/06/2009	05/07/2009	11/18/2009	11/19/2009	06/03/2010	06/04/2010
			Field Sample ID	M166A8X	M166A9	M166B1	M166B1X	M166B2	M166B2X	M166B3	M166B3X	M166B4	M166B4X	M166B5-100603	M166B5X-100604
			SDG	1038811	1068129	1097656	1097656	1120044	1120044	1143853	1143853	1171988	1171988	RFS46	RFS46
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	9.3	-	7.28	-	7.71	-	10.6	-	2.04	0
DO	mg/L	N	NS	-	-	0.44	-	0	-	0.54	-	2.14	-	13.73	11.33
ORP	millivolts	N	NS	-	-	-88	-	-69	-	-103	-	-28	-	-75	-130
pH	pH Units	N	NS	-	-	6.41	-	6.40	-	5.77	-	5.91	-	6.31	6.17
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	10.2U	-	10.6J	-	10.0U	-	7.2U	-	7.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166
			Sample Date	10/07/2010	10/07/2010	10/08/2010	10/08/2010	08/15/2011	08/16/2011	11/21/2011	11/22/2011	03/19/2012	03/20/2012	08/13/2012	08/14/2012	02/21/2013
			Field Sample ID	D1007101	M166B6	D1008101	M166B6X	M166B7	M166B7X	M166B8	M166B8X	M166B9	M166B9X	M166C1	M166C1X	M166C2
			SDG	RFS72	RFS72	RFS72	RFS72	RFT59	RFT59	RFT88	RFT88	RFU25	RFU25	RFV28	RFV28	RFX74
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.23	7.23	0.69	0.69	0	0	1.04	0.28	4.76	0.32	3.17	5.48	10.41
DO	mg/L	N	NS	15.1	15.1	12.01	12.01	14.14	6.52	15.9	12.7	15.92	12.78	15.43	12.19	3.33
ORP	millivolts	N	NS	-69	-69	-134	-134	-107	-22	-46	-44	-35	-77	-152	-119	-155
pH	pH Units	N	NS	6.11	6.11	6.04	6.04	6.06	6.08	6.34	6.26	6.68	6.19	9.87	6.39	6.23
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	700U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	638000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	638000	-
Arsenic	ug/L	N	3	9.8U	9.8U	-	-	9.7J	-	5.1U	-	5.1U	-	6.3	-	1.1J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	6.1	-	0.78J
Benzene	ug/L	N	1	-	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	65900	-	18000
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	67200	-	17700
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	400U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	25000U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	1100J	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-166	MW-179	MW-179	MW-179
			Sample Date	02/22/2013	09/19/2013	09/19/2013	10/29/2013	04/02/2014	04/03/2014	12/11/2014	12/12/2014	07/13/2015	07/14/2015	04/29/2003	09/23/2003	09/22/2004
			Field Sample ID	M166C2X	D0919131	M166C3	M166C4X	M166C5	M166C5X	M166C6	M166C6X	M166C7	M166C7X	M179A1	M179A2	M179A3
			SDG	RFX74	CS013	CS013	CS034	CS080	CS080	CS192	CS192	CS260	CS260		RFE87	RFF25
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	12.72	9.62	9.62	-	16	1263	9.62	12.47	-	15.32	-	-	5.1
DO	mg/L	N	NS	0.51	0.62	0.62	-	1.28	10.33	0.76	0.23	-0.39	2.48	-	-	0.65
ORP	millivolts	N	NS	-252	-228	-228	-	-366	93	-103	-270	-116	-306	-	-	-133
pH	pH Units	N	NS	6.29	6.29	6.29	-	6.24	6.74	6.32	6.27	6.20	-	-	-	6.76
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	716000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	547000	-	-	746000	-	417000	-	538000	-	507000	716000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	-	700U	-	700U	-	-	-	700U	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	547000	-	-	746000	-	417000	-	538000	-	507000	-	-	-
Arsenic	ug/L	N	3	-	2.0J	2.1	-	3.7	-	6.7	-	2.8	-	10.6	33.4	-
Arsenic	ug/L	Y	3	-	2.1	2.1	-	2.4	-	6.6	-	2.2	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	1700	490	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	77800	76500	-	5330	-	30500	-	14600	-	887	3200	5660
Iron	ug/L	Y	300	-	75400	76900	-	5260	-	30600	-	13100	-	-	-	4530
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	40U	-	40U	-	40U	-	40U	40	800U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	15300J	-	-	12500U	-	74400	-	10000U	-	25000U	11000	-	-
Sulfide	ug/L	N	NS	600U	-	-	600U	-	600U	-	630J	-	1600J	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179
			Sample Date	09/23/2004	05/26/2005	05/27/2005	05/27/2005	11/01/2005	11/02/2005	06/14/2006	06/15/2006	12/11/2006	12/12/2006	06/07/2007	06/08/2007	08/19/2008
			Field Sample ID	M179A3X	M179A4	M179A4X	M179A4X	M179A5	M179A5X	M179A6	M179A6X	M179A7	M179A7X	M179A8	M179A8X	M179A9
			SDG	RFF25	RFF56	RFF56	RFF57	965777	965777	993798	993798	1017858	1017858	1041869	1041869	1106372
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	5.31	-	-	5.04	-	-	-	-	-	-	-	5.49
DO	mg/L	N	NS	-	0.45	-	-	0	-	-	-	-	-	-	-	0
ORP	millivolts	N	NS	-	-186	-	-	-190	-	-	-	-	-	-	-	-158
pH	pH Units	N	NS	-	7.37	-	-	7.15	-	-	-	-	-	-	-	7.22
Alkalinity to pH 4.5	ug/L	N	NS	344000	-	505000	-	-	618000	-	610000	-	534000	-	600000	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	410U	-	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	10.2U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	26	-	46	-	-	0.5U	-	42J	-	24	-	92	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	1320	-	-	10400	-	4060J	-	5850J	-	6880	-	6020
Iron	ug/L	Y	300	-	924	-	-	3820	-	3190J	-	3890J	-	5460	-	4510
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	7100	-	1500U	-	-	1500U	-	1800J	-	1500U	-	2500U	-
Sulfide	ug/L	N	NS	530U	-	-	530U	-	530U	-	530U	-	1000J	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-179	MW-180	MW-180	MW-187	MW-187	MW-187
			Sample Date	08/20/2008	06/02/2009	06/03/2009	06/28/2011	03/20/2012	04/09/2013	09/04/2014	02/06/2018	05/09/2003	09/15/2003	05/18/2004	05/20/2004	06/24/2008
			Field Sample ID	M179A9X	M179B1	M179B1X	M179B2X	M179B3X	M179B4X	M179B5X	M179C5X	M180A1	M180A2	M187A1	M187A1A	M187A2
			SDG	1106372	1147599	1147599	RFT37	RFU25	RFY63	CS151	CS641	RFE74	RFE86	RFF11	GWC12	1097890
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	5.08	-	0.21	-	-	10.35	-	-	-	-	-	5
DO	mg/L	N	NS	-	0	-	10.22	-	-	-	-	-	-	-	-	0.4
ORP	millivolts	N	NS	-	-166	-	-107	-	-	-	-	-	-	-	-	-114
pH	pH Units	N	NS	-	6.75	-	7.15	-	-	-	-	-	-	-	-	11.05
Alkalinity to pH 4.5	ug/L	N	NS	598000	-	535000	-	-	-	-	-	313000	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	-	-	-	-	410U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	313000	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	7.9J	4.9U	9.4U	-	10.2U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	140	-	97	26	14	5J	4	0.5U	1000	650	-	0.9U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	6680	-	-	-	-	-	-	11500	13000	786J	-	508
Iron	ug/L	Y	300	-	6390	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	66J	-	-	-	-	-	40U	40U	-	760	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	2500U	-	2500U	-	-	-	-	-	1500U	-	-	-	-
Sulfide	ug/L	N	NS	720J	-	530U	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-187	MW-187	MW-187	MW-187	MW-187	MW-187	MW-187	MW-187	MW-187	MW-187	MW-187	MW-187
			Sample Date	06/25/2008	10/23/2008	10/24/2008	07/14/2009	11/10/2009	06/02/2010	06/02/2010	09/14/2010	06/14/2011	11/17/2011	04/26/2012	08/14/2012
			Field Sample ID	M187A2X	M187A3	M187A3X	M187A4X	M187A5X	D0602101-100602	M187A6X-100602	M187A7X	M187A8X	M187A9X	M187B1X	M187B2X
			SDG	1097890	1116797	1116797	1153395	1170404	RFS45	RFS45	RFS67	RFT32	RFT87	RFU49	RFV28
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	5.15	-	-	-	0.4	0.4	0	2.33	-	0.65	-
DO	mg/L	N	NS	-	0	-	-	-	5.6	5.6	5.06	0	-	4.89	-
ORP	millivolts	N	NS	-	-137	-	-	-	-172	-172	-150	0	-	-46	-
pH	pH Units	N	NS	-	7.59	-	-	-	7.19	7.19	7.14	0.00	-	7.38	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	2J	0.5U	0.6J	0.5J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	1550	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-187	MW-187	MW-187	MW-187	MW-187	MW-187	MW-187	MW-192	MW-192	MW-192	MW-192	MW-192	MW-192
			Sample Date	04/11/2013	03/27/2014	09/23/2014	09/23/2014	12/05/2014	12/05/2014	03/06/2018	03/22/2007	03/23/2007	05/16/2007	05/17/2007	12/06/2007	12/07/2007
			Field Sample ID	M187B3X	M187B4X	M187B5	M187B5X	M187B6	M187B6X	M187C1	M192A1	M192A1X	M192A2	M192A2X	M192A3	M192A3X
			SDG	RFY73	CS077	CP515	CP515	CP617	CP617	CS656	1030794	1030792	1038811	1038811	1068894	1068894
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	5.8	5.8	5.82	5.82	-	-	-	5.91	-	-	-
DO	mg/L	N	NS	-	-	1.46	1.46	4.91	4.91	-	-	-	0	-	-	-
ORP	millivolts	N	NS	-	-	-101.4	-101.4	-110.8	-110.8	-	-	-	-117	-	-	-
pH	pH Units	N	NS	-	-	7.41	7.41	7.06	7.06	-	-	-	5.85	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	208000	-	245000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	1.2J	-	1.2UJ	-	-	10U	-	10U	-	12.0J	-
Arsenic	ug/L	Y	3	-	-	1.1J	-	1.4UJ	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	2J	1J	-	0.6J	-	0.5U	1J	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	21400	-	23700	-	-	9560	-	13400	-	41600	-
Iron	ug/L	Y	300	-	-	20100	-	24000	-	-	-	-	23000	-	40300	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	1500U	-	1500U	-	-	-	-	7300	-	5000U
Sulfide	ug/L	N	NS	-	-	-	600U	-	600U	-	-	-	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-192	MW-192	MW-192	MW-192	MW-192	MW-192	MW-192	MW-192	MW-192	MW-192	MW-192	MW-192
			Sample Date	08/19/2008	08/20/2008	11/12/2008	11/13/2008	07/07/2009	07/08/2009	11/05/2009	11/06/2009	06/03/2010	06/04/2010	06/27/2011	06/28/2011
			Field Sample ID	M192A4	M192A4X	M192A5	M192A5X	M192A6	M192A6X	M192A7	M192A7X	M192A8-100603	M192A8X-100604	M192A9	M192A9X
			SDG	1106372	1106372	1120044	1120044	1152663	1152663	1170013	1170013	RFS46	RFS46	RFT37	RFT37
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.51	-	6.54	-	6.23	-	6.32	-	2	0	5.57	3.04
DO	mg/L	N	NS	0	-	0	-	0	-	1.02	-	8.11	6.93	9.15	6.74
ORP	millivolts	N	NS	-134	-	-112	-	-112	-	-32	-	-71	-126	-98	-116
pH	pH Units	N	NS	6.54	-	6.65	-	6.25	-	5.95	-	6.48	6.32	6.62	6.66
Alkalinity to pH 4.5	ug/L	N	NS	-	218000	-	207000	-	195000	-	195000	-	193000	-	160000
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	38.9	-	27.4	-	18.9J	-	24.6	-	32.4	-	14.9J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	54300	-	46900	-	39000	-	29900	-	32300	-	48600	-
Iron	ug/L	Y	300	33100	-	41100	-	31100	-	25200	-	15400	-	45100	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	10000U	-	12500U	-	12500U	-	25000U	-	10000U	-	5000U
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-192	MW-192	MW-192	MW-192	MW-192	MW-192	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195
			Sample Date	03/19/2012	03/20/2012	02/25/2013	02/26/2013	09/04/2014	09/05/2014	12/13/2004	12/14/2004	01/19/2005	04/22/2005	08/01/2005	08/02/2005	10/04/2005
			Field Sample ID	M192B1	M192B1X	M192B2	M192B2X	M192B3	M192B3X	M195A1	M195A1X	M195A2	M195A3X	M195A4	M195A4X	M195A5X
			SDG	RFU25	RFU25	RFX79	RFX79	CS152	CS152	NFE16	NFE16	NFE18	GWC19	953731	953731	961782
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.48	0.3	3.59	6.14	7.08	7.16	-	-	-	-	2.9	-	-
DO	mg/L	N	NS	8.12	6.57	1.75	0.68	0.19	0.11	-	-	-	-	2.7	-	-
ORP	millivolts	N	NS	-67	-147	-164	-58	165	75	-	-	-	-	-92	-	-
pH	pH Units	N	NS	6.86	6.49	6.72	6.64	6.81	6.41	-	-	-	-	6.36	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	127000	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	167000	-	150000	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	700U	-	700U	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	167000	-	150000	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	7.7J	-	15.7	-	13.6J	-	4.7U	-	4.7U	-	9.3U	-	-
Arsenic	ug/L	Y	3	-	-	9.6	-	14.6	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	3U	0.5U	-	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	32800	-	16500	-	36500	-	9280	-	12800	-	-	-	-
Iron	ug/L	Y	300	32300	-	10300	-	31900	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	10000U	-	25000U	-	10000U	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	600U	-	600U	-	600U	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195
			Sample Date	01/19/2006	01/20/2006	04/18/2006	08/08/2006	08/09/2006	10/27/2006	01/18/2007	01/19/2007	05/01/2007	10/30/2007	01/07/2008	01/08/2008	05/06/2008
			Field Sample ID	M195A6	M195A6X	M195A7X	M195A8	M195A8X	M195A9X	M195B1	M195B1X	M195B2X	M195B4X	M195B5	MW195B5X	M195B6X
			SDG	975178	975178	986041	1000961	1000961	1011913	1022362	1022362	1036141	1063353	1072349	1072349	1089841
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	9.3U	-	-	10U	-	-	10U	-	-	-	10.0U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	-	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195
			Sample Date	07/07/2008	07/08/2008	10/09/2008	01/26/2009	01/27/2009	04/24/2009	08/05/2009	08/06/2009	10/21/2009	02/03/2010	02/04/2010	05/20/2010
			Field Sample ID	M195B7	M195B7X	M195B8X	M195B9	M195B9X	M195C1X	M195C2	M195C2X	M195C3X	M195C4	M195C4X	M195C4X-100520
			SDG	1099601	1099601	1114369	1129788	1129788	1142037	1156644	1156644	1167395	1181531	1181531	RFS43
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.7	-	-	3.57	-	-	2.09	-	-	3.65	-	2.01
DO	mg/L	N	NS	0.5	-	-	4.83	-	-	4	-	-	3.31	-	4.64
ORP	millivolts	N	NS	-75	-	-	34	-	-	-119	-	-	-119	-	-269
pH	pH Units	N	NS	6.33	-	-	4.75	-	-	4.83	-	-	6.99	-	7.10
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	11.6J	-	-	10.0U	-	-	7.2U	-	-	7.2U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195
			Sample Date	07/22/2010	07/23/2010	11/11/2010	03/09/2011	03/09/2011	04/19/2011	07/18/2011	07/19/2011	10/21/2011	01/25/2012	01/25/2012	01/26/2012	01/26/2012
			Field Sample ID	M195C6	M195C6X	M195C7X	M195C8	M195C8X	M195C9X	M195D1	M195D1X	M195D2X	D0125121	M195D3	D0126121	M195D3X
			SDG	RFS57	RFS57	RFS80	RFS97	RFS97	RFT10	RFT43	RFT43	RFT80	RFU03	RFU03	RFU03	RFU03
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	FD	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.52	0	0	3.46	3.46	5.03	1.38	-	2.26	2.8	2.8	5.65	5.65
DO	mg/L	N	NS	0	0	6.89	5.98	5.98	4.32	7.6	7.01	5.61	7.5	7.5	4.7	4.7
ORP	millivolts	N	NS	-46	0	0	109	109	-180	19	-	-194	-144	-144	-198	-198
pH	pH Units	N	NS	6.35	0.00	0.00	5.33	5.33	6.66	5.67	-	6.65	7.18	7.18	6.42	6.42
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	9.8U	-	-	9.8U	-	-	9.9J	-	-	5.1U	5.1U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195
			Sample Date	04/12/2012	07/10/2012	07/11/2012	10/09/2012	01/22/2013	01/22/2013	01/23/2013	01/23/2013	04/16/2013	07/17/2013	07/18/2013	10/09/2013	03/03/2014
			Field Sample ID	M195D4X	M195D5	M195D5X	M195D6X	D0122131	M195D7	D0123131	M195D7X	M195D8X	M195D9	M195D9X	M195E1X	M195E2
			SDG	RFU41	RFV06	RFV06	RFV57	RFX40	RFX40	RFX40	RFX40	RFY82	RFB44	RFB44	CS026	CS068
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.3	1.35	2.77	1.49	2.42	2.42	5	5	4.74	3.11	5.94	-	3.05
DO	mg/L	N	NS	5.8	7.27	6.21	6.35	6.46	6.46	5.79	5.79	3.54	5.87	0.49	-	8.13
ORP	millivolts	N	NS	-209	-32	-57	-117	-125	-125	-164	-164	-176	-171	-215	-	-85
pH	pH Units	N	NS	6.23	6.59	5.76	7.20	6.55	6.55	6.73	6.73	6.42	7.29	6.20	-	7.40
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	6.8U	-	-	0.82J	0.59J	-	-	-	14.8	-	-	2.1
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	-	0.5U	0.5U	0.5U	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-195	MW-196	MW-196
			Sample Date	03/04/2014	04/24/2014	07/21/2014	07/22/2014	10/14/2014	03/30/2015	03/31/2015	05/07/2015	07/16/2015	07/17/2015	10/13/2015	12/14/2004	12/14/2004
			Field Sample ID	M195E2X	M195E3X	M195E4	M195E4X	M195E5X	M195E6	M195E6X	M195E7X	M195E8	M195E8X	M195E9X	M196A1	M196A1X
			SDG	CS068	CS090	CS128	CS128	CS170	CS214	CS214	CS227	CS263	CS263	CS297	NFE16	NFE16
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.85	5.99	3.01	5.94	6.49	2.95	5.58	6.01	-	6.38	7.42	-	-
DO	mg/L	N	NS	1.53	1.46	3.84	0.31	-	8.06	5.82	0.45	-	3.91	2.93	-	-
ORP	millivolts	N	NS	-200	-205	60	-216	-	-69	-29	-52	-	-40	-62	-	-
pH	pH Units	N	NS	6.76	6.59	6.27	6.14	-	6.56	6.60	6.39	-	6.79	6.33	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	4.7	-	-	0.82U	-	-	5.1	-	-	4.7U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	7560	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196
			Sample Date	01/19/2005	04/22/2005	08/01/2005	08/02/2005	10/04/2005	01/19/2006	01/20/2006	04/18/2006	08/08/2006	08/09/2006	10/31/2006	01/18/2007	01/19/2007
			Field Sample ID	M196A2	M196A3X	M196A4	M196A4X	M196A5X	M196A6	M196A6X	M196A7X	M196A8	M196A8X	M196A9X	M196B1	M196B1X
			SDG	NFE18	GWC19	953731	953731	961782	975178	975178	986041	1000961	1000961	1012218	1022362	1022362
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	7.76	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	2.29	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-169	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	7.03	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	6.9J	-	10.1J	-	-	9.3U	-	-	10U	-	-	10U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3U	0.5U	-	0.5U	16	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	677	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196
			Sample Date	04/26/2007	10/30/2007	01/07/2008	01/08/2008	05/06/2008	07/07/2008	07/08/2008	10/09/2008	01/20/2009	01/21/2009	04/24/2009	08/05/2009	08/05/2009
			Field Sample ID	M196B2X	M196B4X	M196B5	MW196B5X	M196B6X	M196B7	M196B7X	M196B8X	M196B9	M196B9X	M196C1X	M196C2	M196C2X
			SDG	1035529	1063353	1072349	1072349	1089841	1099601	1099601	1114369	1129030	1129030	1142037	1156453	1156453
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	7.29	-	-	7.78	-	-	8.07	-	-	6.78	6.78
DO	mg/L	N	NS	-	-	0	-	-	0	-	-	0	-	-	2.76	2.76
ORP	millivolts	N	NS	-	-	-322	-	-	-354	-	-	-347	-	-	-371	-371
pH	pH Units	N	NS	-	-	8.95	-	-	7.87	-	-	7.23	-	-	6.76	6.76
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	10.0U	-	-	10.2U	-	-	10.0U	-	-	7.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196
			Sample Date	10/21/2009	02/03/2010	02/04/2010	05/20/2010	05/20/2010	07/22/2010	07/23/2010	11/11/2010	03/07/2011	03/08/2011	04/19/2011	07/18/2011
			Field Sample ID	M196C3X	M196C4	M196C4X	D0520101	M196C4X-100520	M196C6	M196C6X	M196C7X	M196C8	M196C8X	M196C9X	M196D1
			SDG	1167395	1181531	1181531	RFS43	RFS43	RFS57	RFS57	RFS80	RFS96	RFS96	RFT10	RFT43
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	0	-	0	0	4.46	0	0	0.43	0.34	1.61	0.61
DO	mg/L	N	NS	-	6.843	-	10.1	10.1	20.64	7.57	7.02	17.26	8.84	7.18	19.29
ORP	millivolts	N	NS	-	-328	-	-354	-354	-316	-391	-381	-333	-348	-311	-323
pH	pH Units	N	NS	-	7.96	-	7.31	7.31	8.36	9.79	7.19	7.91	7.26	7.50	7.66
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	7.2U	-	-	-	9.8U	-	-	9.8U	-	-	5.1U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196
			Sample Date	07/19/2011	10/21/2011	01/25/2012	01/26/2012	04/12/2012	07/02/2012	07/03/2012	10/09/2012	01/22/2013	01/23/2013	04/16/2013	07/17/2013	07/18/2013
			Field Sample ID	M196D1X	M196D2X	M196D3	M196D3X	M196D4X	M196D5	M196D5X	M196D6X	M196D7	M196D7X	M196D8X	M196D9	M196D9X
			SDG	RFT43	RFT80	RFU03	RFU03	RFU41	RFU98	RFU98	RFV57	RFX40	RFX40	RFY82	RFB44	RFB44
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0	0.08	3.16	0	1.17	0.5	3.05	0.38	2.49	8.15	8.15	7.44	9.76
DO	mg/L	N	NS	8.58	8.95	18.12	7.92	8.4	26.55	7.49	8.26	8.13	0.19	0.53	1.1	-0.03
ORP	millivolts	N	NS	-367	-329	-200	-374	-339	-295	2.4	-318	-263	-432	-308	-232	-314
pH	pH Units	N	NS	7.38	7.92	7.85	7.31	7.50	8.80	7.58	9.29	7.82	7.35	7.25	6.73	7.40
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	5.1U	-	-	6.8U	-	-	0.40U	-	-	1.5J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196	MW-196
			Sample Date	10/09/2013	03/03/2014	03/03/2014	03/04/2014	03/04/2014	04/24/2014	07/21/2014	07/22/2014	10/14/2014	03/30/2015	03/31/2015	05/07/2015	07/16/2015
			Field Sample ID	M196E1X	D0303141	M196E2	D0304141	M196E2X	M196E3X	M196E4	M196E4X	M196E5X	M196E6	M196E6X	M196E7X	D0716151
			SDG	CS026	CS068	CS068	CS068	CS068	CS090	CS128	CS128	CS170	CS214	CS214	CS227	CS263
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	8.2	8.2	8.28	8.28	8.13	7.83	7.68	8.5	8.57	9.33	9.52	-
DO	mg/L	N	NS	-	6.71	6.71	0.98	0.98	1.19	1.2	0.11	-0.72	5.4	3.06	0.31	-
ORP	millivolts	N	NS	-	-242	-242	-311	-311	-280	-138	-394	-371	-147	-240	-151	-
pH	pH Units	N	NS	-	7.37	7.37	7.17	7.17	7.26	7.50	7.30	7.26	7.75	7.14	7.73	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	1.2J	0.98J	-	-	-	0.93J	-	-	1.6J	-	-	1.8J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	-	0.5U	0.5U	0.5U	-	0.5U	0.5U	-	0.5UJ	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-196	MW-196	MW-196	MW-196	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197
			Sample Date	07/16/2015	07/17/2015	07/17/2015	10/13/2015	12/22/2004	12/22/2004	01/19/2005	04/26/2005	07/13/2005	07/14/2005	10/06/2005	01/19/2006	01/20/2006
			Field Sample ID	M196E8	D0717151	M196E8X	M196E9X	M197A1	M197A1X	M197A2	M197A3X	M197A4	M197A4X	M197A5X	M197A6	M197A6X
			SDG	CS263	CS263	CS263	CS297	NFE17	NFE17	NFE18	GWC20	951288	951288	962189	975178	975178
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	9.67	9.67	28.32	-	-	-	-	4.59	-	6.96	-	-
DO	mg/L	N	NS	-	0.84	0.84	1.79	-	-	-	-	0.6	-	0	-	-
ORP	millivolts	N	NS	-	-270	-270	-124	-	-	-	-	-189	-	-232	-	-
pH	pH Units	N	NS	-	6.95	6.95	7.14	-	-	-	-	4.16	-	4.62	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	1.3J	-	-	-	35.4	-	6.7J	-	9.3U	-	-	9.3U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5UJ	0.5U	0.5U	-	0.5U	0.5U	0.5U	-	0.9U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	904000	-	410000	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197
			Sample Date	04/18/2006	08/08/2006	08/09/2006	10/31/2006	01/22/2007	01/23/2007	05/01/2007	10/25/2007	01/14/2008	01/15/2008	05/01/2008	07/07/2008	07/08/2008
			Field Sample ID	M197A7X	M197A8	M197A8X	M197A9X	M197B1	M197B1X	M197B2X	M197B4X	M197B5	M197B5X	M197B6X	M197B7	M197B7X
			SDG	986041	1000961	1000961	1012218	1022693	1022693	1036141	1062755	1073389	1073389	1089148	1099601	1099601
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	3.15	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	0.6	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	5	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	5.48	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10U	-	-	10U	-	-	-	10.0U	-	-	14.3J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197
			Sample Date	10/09/2008	01/20/2009	01/21/2009	04/24/2009	08/05/2009	08/05/2009	10/21/2009	02/03/2010	02/03/2010	05/20/2010	07/22/2010	07/23/2010
			Field Sample ID	M197B8X	M197B9	M197B9X	M197C1X	M197C2	M197C2X	M197C3X	M197C4	M197C4X	M197C4X-100520	M197C6	M197C6X
			SDG	1114369	1129030	1129030	1142037	1156453	1156453	1167395	1181327	1181327	RFS43	RFS57	RFS57
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	3.15	-	-	1.81	1.81	-	-	-	0	2.43	0
DO	mg/L	N	NS	-	0.76	-	-	3.51	3.51	-	-	-	5.87	0	0
ORP	millivolts	N	NS	-	99	-	-	-225	-225	-	-	-	-194	-214	0
pH	pH Units	N	NS	-	4.26	-	-	5.85	5.85	-	-	-	6.27	7.47	0.00
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	-	-	7.2U	-	-	7.2U	-	-	9.8U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197
			Sample Date	11/11/2010	03/07/2011	03/08/2011	04/19/2011	07/07/2011	07/08/2011	10/18/2011	01/25/2012	01/26/2012	04/12/2012	07/02/2012	07/02/2012	07/03/2012
			Field Sample ID	M197C7X	M197C8	M197C8X	M197C9X	M197D1	M197D1X	M197D2X	M197D3	M197D3X	M197D4X	D0702121	M197D5	D0703121
			SDG	RFS80	RFS96	RFS96	RFT10	RFT40	RFT40	RFT79	RFU03	RFU03	RFU41	RFU98	RFU98	RFU98
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.07	3.26	4.14	2.65	2.17	0.83	0.9	0.13	1.7	3	0.4	0.4	3.2
DO	mg/L	N	NS	7.83	8.6	6.89	5.7	8.82	8.22	7.61	7.78	6.8	8.29	8.61	8.61	7.91
ORP	millivolts	N	NS	22	-106	-191	124	-117	-217	41	-189	-200	16	180	180	-258
pH	pH Units	N	NS	5.58	7.12	7.36	6.34	6.69	6.43	5.67	7.37	6.84	5.87	7.48	7.48	6.46
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.8U	-	-	5.1U	-	-	5.1U	-	-	26.2	24.9	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197
			Sample Date	07/03/2012	10/09/2012	01/22/2013	01/23/2013	04/16/2013	07/18/2013	07/19/2013	10/08/2013	02/26/2014	02/27/2014	04/24/2014	07/21/2014	07/22/2014
			Field Sample ID	M197D5X	M197D6X	M197D7	M197D7X	M197D8X	M197D9	M197D9X	M197E1X	M197E2	M197E2X	M197E3X	M197E4	M197E4X
			SDG	RFU98	RFV57	RFX40	RFX40	RFY82	RFB45	RFB45	CS025	CS067	CS067	CS090	CS128	CS128
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.2	1.02	2.12	6.47	6.85	2.81	7.72	-	2.34	6.6	5.03	2.61	7.18
DO	mg/L	N	NS	7.91	8.64	7.33	1.22	0.74	1.98	0.06	-	5.46	2.26	1.7	2.04	0.49
ORP	millivolts	N	NS	-258	-134	-59	-234	-238	-163	-166	-	-154	-78	-325	-203	-236
pH	pH Units	N	NS	6.46	7.35	6.49	6.46	6.58	7.15	6.22	-	7.54	6.44	7.50	7.26	6.10
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	0.40U	-	-	1.8J	-	-	0.78U	-	-	5.4	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-197	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198
			Sample Date	10/14/2014	04/01/2015	04/02/2015	05/07/2015	07/16/2015	07/17/2015	10/13/2015	12/22/2004	12/22/2004	01/27/2005	01/28/2005	04/26/2005	07/13/2005
			Field Sample ID	M197E5X	M197E6	M197E6X	M197E7X	M197E8	M197E8X	M197E9X	M198A1	M198A1X	M198A2	M198A2X	M198A3X	M198A4
			SDG	CS170	CS215	CS215	CS227	CS263	CS263	CS297	NFE17	NFE17	NFE18	NFE18	GWC20	951288
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.53	2.68	7.56	7.99	-	8.22	7.98	-	-	-	-	-	7.01
DO	mg/L	N	NS	-0.08	4.45	-0.05	6.84	-	1.52	5.59	-	-	-	-	-	0.49
ORP	millivolts	N	NS	-93	-211	-22	-94	-	-181	-63	-	-	-	-	-	-321
pH	pH Units	N	NS	5.89	7.22	6.40	6.57	-	6.67	6.67	-	-	-	-	-	7.18
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	0.82U	-	-	1.7J	-	-	4.7U	-	8.0J	-	-	9.3U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	3U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	1390	-	1180	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198
			Sample Date	07/14/2005	10/06/2005	01/19/2006	01/20/2006	04/18/2006	08/09/2006	08/09/2006	01/22/2007	01/23/2007	05/01/2007	07/24/2007	07/25/2007	10/25/2007
			Field Sample ID	M198A4X	M198A5X	M198A6	M198A6X	M198A7X	M198A8	M198A8X	M198A9	M198A9X	M198B2X	M198B3	M198B3X	M198B4X
			SDG	951288	962189	975178	975178	986041	1000961	1000961	1022693	1022693	1036141	1048553	1048553	1062755
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	7.58	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	0.31	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-401	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	8.49	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	9.3U	-	-	10U	-	10U	-	-	10.0U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.9U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	0.5U	-	0.5U	5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198
			Sample Date	01/14/2008	01/15/2008	05/01/2008	07/07/2008	07/07/2008	10/10/2008	01/26/2009	01/27/2009	04/24/2009	08/05/2009	08/05/2009	10/21/2009	02/03/2010
			Field Sample ID	M198B5	M198B5X	M198B6X	M198B7	M198B7X	M198B8X	M198B9	M198B9X	M198C1X	M198C2	M198C2X	M198C3X	M198C4
			SDG	1073389	1073389	1089148	1099601	1099601	1114607	1129788	1129788	1142037	1156453	1156453	1167395	1181327
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	7.43	7.43	-	7.71	-	-	6.75	6.75	-	0.12
DO	mg/L	N	NS	-	-	-	0	0	-	0	-	-	3.16	3.16	-	7.37
ORP	millivolts	N	NS	-	-	-	-349	-349	-	-169	-	-	-368	-368	-	-295
pH	pH Units	N	NS	-	-	-	7.67	7.67	-	5.83	-	-	5.82	5.82	-	7.05
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.0U	-	-	10.2U	-	-	50.0U	-	-	7.2U	-	-	36.0U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	3U	0.5U	-	0.5U	5U	-	0.5U	0.5U	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198
			Sample Date	02/03/2010	05/20/2010	07/22/2010	07/23/2010	11/11/2010	11/11/2010	03/07/2011	03/07/2011	03/08/2011	04/19/2011	07/07/2011	07/07/2011
			Field Sample ID	M198C4X	M198C4X-100520	M198C6	M198C6X	D1111103	M198C7X	D030711	M198C8	M198C8X	M198C9X	D0707111	M198D1
			SDG	1181327	RFS43	RFS57	RFS57	RFS80	RFS80	RFS96	RFS96	RFS96	RFT10	RFT40	RFT40
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	FD	REG	REG	REG	FD	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.12	0	3.7	0	0	0	0.36	0.36	0.3	0.97	1.7	1.7
DO	mg/L	N	NS	7.37	7.31	8.52	7.51	8.04	8.04	8.86	8.86	7.45	6.63	11.05	11.05
ORP	millivolts	N	NS	-295	-327	-371	-393	-354	-354	-314	-314	-330	-291	-230	-230
pH	pH Units	N	NS	7.05	7.19	8.58	9.58	6.95	6.95	7.62	7.62	7.47	7.29	7.54	7.54
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	9.8U	-	-	-	49.0U	49.0U	-	-	25.5U	25.5U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	5U	-	0.5U	0.5U	0.5U	-	-	0.5U	0.5U	-	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198
			Sample Date	07/08/2011	07/08/2011	10/18/2011	01/25/2012	01/26/2012	04/12/2012	07/02/2012	07/03/2012	10/09/2012	01/22/2013	01/23/2013	04/16/2013	07/18/2013
			Field Sample ID	D0708111	M198D1X	M198D2X	M198D3	M198D3X	M198D4X	M198D5	M198D5X	M198D6X	M198D7	M198D7X	M198D8X	M198D9
			SDG	RFT40	RFT40	RFT79	RFU03	RFU03	RFU41	RFU98	RFU98	RFV57	RFX40	RFX40	RFY82	RFB45
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0	0	0	2.09	0	1.04	0.41	2.7	0.4	7.23	7.49	7.44	7
DO	mg/L	N	NS	7.68	7.68	7.04	8.7	7.42	7.81	15.21	6.92	7.7	1.04	0.32	-0.41	1.45
ORP	millivolts	N	NS	-357	-357	-87	-270	-345	-326	-295	-396	-288	-358	-465	-370	-230
pH	pH Units	N	NS	7.15	7.15	7.49	7.46	7.34	7.38	8.31	7.72	8.57	7.31	7.31	7.27	6.05
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	10.6J	-	-	6.8U	-	-	3.1	-	-	2.7
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	5U	5U	3U	-	0.5U	0.5U	-	0.5U	1U	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198	MW-198
			Sample Date	07/19/2013	10/08/2013	02/26/2014	02/26/2014	04/24/2014	04/24/2014	07/21/2014	07/22/2014	10/14/2014	04/01/2015	04/02/2015	05/07/2015	07/16/2015
			Field Sample ID	M198D9X	M198E1X	M198E2	M198E2X	D0424141	M198E3X	M198E4	M198E4X	M198E5X	M198E6	M198E6X	M198E7X	M198E8
			SDG	RFB45	CS025	CS067	CS067	CS090	CS090	CS128	CS128	CS170	CS215	CS215	CS227	CS263
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.02	-	7.64	7.64	7.49	7.49	6.98	7.05	7.51	7.6	7.72	7.58	-
DO	mg/L	N	NS	-0.03	-	2.07	2.07	1.43	1.43	3.23	0.05	-0.27	8.96	0.52	0.41	-
ORP	millivolts	N	NS	-309	-	-317	-317	-296	-296	-129	-411	-242	-168	-231	-278	-
pH	pH Units	N	NS	7.42	-	7.41	7.41	7.64	7.64	7.22	7.67	7.58	7.75	7.73	7.47	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	2.3	-	-	-	2.0	-	-	1.6J	-	-	2.6
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	1U	0.5U	-	0.5U	0.5U	-	0.5U	3UJ	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-198	MW-198	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199
			Sample Date	07/17/2015	10/13/2015	12/21/2004	12/22/2004	01/19/2005	04/28/2005	07/13/2005	07/14/2005	10/06/2005	01/30/2006	01/31/2006	04/13/2006	08/10/2006
			Field Sample ID	M198E8X	M198E9X	M199A1	M199A1X	M199A2	M199A3X	M199A4	M199A4X	M199A5X	M199A6	M199A6X	M199A7X	M199A8
			SDG	CS263	CS297	NFE17	NFE17	NFE18	GWC20	951288	951288	962189	976361	976361	985688	1001382
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.26	6.72	-	-	-	-	4.39	-	-	-	-	-	-
DO	mg/L	N	NS	1.98	5.97	-	-	-	-	0.69	-	0	-	-	-	-
ORP	millivolts	N	NS	-167	-306	-	-	-	-	-16	-	56	-	-	-	-
pH	pH Units	N	NS	7.09	7.13	-	-	-	-	5.68	-	5.20	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	6.8J	-	4.7U	-	9.3U	-	-	9.3U	-	-	10.4J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5UJ	0.5U	-	0.5U	0.5U	0.5U	-	0.9U	0.5U	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	168000	-	87800	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199
			Sample Date	08/11/2006	10/10/2006	01/24/2007	01/25/2007	05/08/2007	11/08/2007	01/14/2008	01/15/2008	05/16/2008	07/10/2008	07/11/2008	10/07/2008	01/22/2009
			Field Sample ID	M199A8X	M199A9X	M199B1	M199B1X	M199B2X	M199B4X	M199B5	M199B5X	M199B6X	M199B7	M199B7X	M199B8X	M199B9
			SDG	1001382	1009212	1023101	1023101	1037238	1064801	1073389	1073389	1091830	1100292	1100292	1113891	1129356
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	4.35	-	-	5.21
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	0.92	-	-	0
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-71	-	-	-64
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	6.46	-	-	4.82
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	10U	-	-	-	10.0U	-	-	10.2U	-	-	10.0U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	0.5U	-	3U	0.5U	-	0.5U	37J	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199
			Sample Date	01/23/2009	04/28/2009	08/10/2009	08/11/2009	10/22/2009	01/26/2010	01/27/2010	04/15/2010	08/05/2010	08/05/2010	11/11/2010	11/11/2010	03/01/2011
			Field Sample ID	M199B9X	M199C1X	M199C2	M199C2X	M199C3X	M199C4	M199C4X	M199C5X	M199C6	M199C6X	D1111101	M199C7X	M199C8
			SDG	1129356	1142383	1157187	1157187	1167632	1180279	1180279	RFS39	RFS62	RFS62	RFS80	RFS80	RFS94
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	4.21	-	-	0.61	-	-	2.31	2.31	0	0	0.9
DO	mg/L	N	NS	-	-	4.05	-	-	5.15	-	-	15.11	15.11	13.53	13.53	13.7
ORP	millivolts	N	NS	-	-	-113	-	-	-89	-	-	-73	-73	-152	-152	-145
pH	pH Units	N	NS	-	-	6.05	-	-	6.50	-	-	7.58	7.58	6.46	6.46	6.97
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	7.2U	-	-	7.2U	-	-	9.8U	-	-	-	9.8U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199
			Sample Date	03/02/2011	04/12/2011	07/05/2011	07/06/2011	10/18/2011	02/01/2012	02/02/2012	04/05/2012	07/10/2012	07/11/2012	10/18/2012	10/18/2012	01/28/2013
			Field Sample ID	M199C8X	M199C9X	M199D1	M199D1X	M199D2X	M199D3	M199D3X	M199D4X	M199D5	M199D5X	D1018121	M199D6X	M199D7
			SDG	RFS94	RFT07	RFT39	RFT39	RFT79	RFU06	RFU06	RFU39	RFV06	RFV06	RFV80	RFV80	RFX42
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.45	1.41	2.92	0.44	-	0.2	2.07	1.2	1.44	2.73	4.47	4.47	5.14
DO	mg/L	N	NS	11.45	12.87	15.64	13.21	-	16.05	14.9	15.5	15.21	14.12	14.3	14.3	4.6
ORP	millivolts	N	NS	-149	-74	-70	-106	-	-107	-17	-30	-177	-164	-89	-89	-147
pH	pH Units	N	NS	6.92	6.76	6.81	6.69	-	7.14	7.05	6.86	7.27	6.75	6.66	6.66	6.77
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	5.1U	-	-	5.1U	-	-	6.8U	-	-	-	1.0J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199
			Sample Date	01/29/2013	04/18/2013	07/18/2013	07/19/2013	10/09/2013	02/19/2014	02/20/2014	04/25/2014	07/16/2014	07/17/2014	10/15/2014	01/22/2015	01/23/2015
			Field Sample ID	M199D7X	M199D8X	M199D9	M199D9X	M199E1X	M199E2	M199E2X	M199E3X	M199E4	M199E4X	M199E5X	M199E6	M199E6X
			SDG	RFX42	RFY95	RFB45	RFB45	CS026	CS064	CS064	CS091	CS126	CS126	CS171	CS198	CS198
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	15.04	12.43	4.24	12.63	-	6.4	11.92	14.37	4.03	8.25	13.26	6.31	13.97
DO	mg/L	N	NS	0.55	0.19	1.44	-0.06	-	6.8	0.38	3.09	2.17	0.58	-0.37	1.31	-0.13
ORP	millivolts	N	NS	-274	-193	-133	-166	-	-121	-127	-245	-129	-29	-137	-131	-315
pH	pH Units	N	NS	6.61	6.70	6.65	6.71	-	6.70	6.43	6.66	7.38	6.53	6.49	6.67	6.51
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	2.5	-	-	0.78U	-	-	1.4J	-	-	0.82U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-199	MW-199	MW-199	MW-199	MW-199	MW-199	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2
			Sample Date	04/24/2015	07/29/2015	07/30/2015	10/15/2015	02/08/2018	02/09/2018	10/19/1995	01/03/1996	02/23/1996	04/18/1996	03/20/2002	10/15/2002
			Field Sample ID	M199E7X	M199E8	M199E8X	M199E9X	M199F6	M199F6X	MW-0002A-1	MW-0002-AY	MW-0002-AX	MW-0002-AZ	M002A1	M002A2X
			SDG	CS223	CS268	CS268	CS299	CS644	CS644	54399	60035	60694	61449	HPA01	RFE30
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	14.38	-	14.05	12.66	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	1.37	-	2.24	6.52	-	-	-	-	-	-	-	3.41
ORP	millivolts	N	NS	-94	-	-68	-81	-	-	-	-	-	-	-	386
pH	pH Units	N	NS	6.73	-	7.47	6.85	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	2.7	-	-	1.0J	-	2.4B*	8.4B*	10U	5.1B*	-	4.9U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	0.5U	1U	1U	1U	1U	-	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	101
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	400U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2
			Sample Date	10/15/2002	01/30/2003	01/30/2003	05/26/2004	05/26/2004	08/11/2008	08/12/2008	10/29/2008	10/30/2008	05/07/2009	05/08/2009	10/26/2009
			Field Sample ID	M002A2Y	M002A3X	M002A3Y	040526PMW-2	040526PMW-2	M002A4	M002A4X	M002A5	M002A5X	M002A6	M002A6X	M002A7
			SDG	RFE30	RFE62	RFE62	PHS01	PHS02	1105054	1105054	1117661	1117661	1144089	1144089	1168255
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	7.8	-	7.59	-	7.29	-	7.91
DO	mg/L	N	NS	3.41	2.42	2.42	-	-	3.38	-	0	-	0.14	-	1.3
ORP	millivolts	N	NS	386	154	154	-	-	137	-	116	-	140	-	153
pH	pH Units	N	NS	-	-	-	-	-	5.70	-	6.02	-	531.00	-	5.98
Alkalinity to pH 4.5	ug/L	N	NS	78700	-	70400	41000	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	410U	410U	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	78700	-	70400	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	4.9U	-	9.4U	-	10.2U	-	10.0U	-	10.0U	-	7.2U
Arsenic	ug/L	Y	3	-	-	-	-	9.4U	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	63J	-	2960	-	157J	-	455	-	477	-	204
Iron	ug/L	Y	300	-	-	-	-	1870	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	40U	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	63000	-	81900	81900	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	530U	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2
			Sample Date	10/27/2009	04/29/2010	04/29/2010	07/25/2011	07/26/2011	03/15/2012	03/16/2012	02/25/2013	02/26/2013	03/31/2014	04/01/2014	03/05/2018	03/06/2018
			Field Sample ID	M002A7X	M002A8	M002A8X	M002A9	M002A9X	M002B1	M002B1X	M002B2	M002B2X	M002B3	M002B3X	M002B7	M002B7X
			SDG	1168255	RFS40	RFS40	RFT46	RFT46	RFU23	RFU23	RFX79	RFX79	CS079	CS079	CS656	CS656
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	0.84	0.84	2.28	2.97	1.94	3.21	8.17	8.85	7.68	8.31	-	-
DO	mg/L	N	NS	-	11.92	11.92	16.43	8.19	13.93	8.28	1.65	1.28	5.49	3.68	-	-
ORP	millivolts	N	NS	-	192	192	105	94	132	99	-189	149	-106	-176	-	-
pH	pH Units	N	NS	-	6.00	6.00	6.32	6.22	6.46	6.41	6.15	6.11	6.18	6.09	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	67700	-	76000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	700U	-	700U	-	1700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	67700	-	76000	-	91000
Arsenic	ug/L	N	3	-	7.2U	-	5.1U	-	5.1U	-	0.48J	-	0.78U	-	0.72U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	0.44J	-	0.78U	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	725	-	37.1J	-	14.1U	-	135J	-	122J	-	80.5U	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	33.3U	-	43.0U	-	80.5U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	52J	-	46J	-	680
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	73900	-	117000	-	133000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	600U	-	600U	-	940J

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20
			Sample Date	04/30/1998	10/17/2002	10/17/2002	02/10/2003	02/11/2003	09/24/2003	05/20/2004	09/22/2004	05/25/2005	10/25/2005	05/24/2006	11/07/2006	05/18/2007
			Field Sample ID	M020PS6	M020A1X	M020A1Y	M020A2X	M020A2Y	M020A3	M020A4A	M020A5	M020A6	M020A7	M020A8	M020A9	M020B1
			SDG	E33866	RFE33	RFE33	RFE64	RFE64	RFE87	RFF11	RFF25	RFF55	964663	990907	1013229	1039073
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	0.78	0.78	0.84	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-145	-145	-59	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	489000	-	474000	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	410U	-	410U	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	489000	-	474000	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.6J	-	4.9U	-	4.9U	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	2.7	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	18300	-	34700	-	36100	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	40U	40U	40U	40U	40U	40U	40U	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	15000U	-	5600	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-200
			Sample Date	07/29/2008	07/30/2008	05/07/2009	06/08/2010	07/20/2011	03/16/2012	03/01/2013	08/26/2014	12/04/2017	12/04/2017	03/12/2018	12/21/2004
			Field Sample ID	M020B2	M020B2X	M020B3X	M020B4X-100608	M020B5X	M020B6X	M020B7X	M020B8X	M020C2	M020C2X	M020C3X	M200A1
			SDG	1103086	1103086	1143853	RFS46	RFT45	RFU23	RFX87	CS146	CQ913	CQ913	CQ998	NFE17
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.01	-	-	1.92	1.08	-	4.23	4.61	-	-	-	-
DO	mg/L	N	NS	0.34	-	-	13.29	13.89	-	2.86	1.07	-	-	-	-
ORP	millivolts	N	NS	-132	-	-	-107	-25	-	-163	-374	-	-	-	-
pH	pH Units	N	NS	6.37	-	-	6.36	6.21	-	6.64	7.12	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.2U	-	-	-	-	-	-	-	5.5	-	-	4.7U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	5.6	-	-	-
Benzene	ug/L	N	1	-	3U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	12300	-	-	2060
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	11600	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200
			Sample Date	12/22/2004	01/25/2005	01/26/2005	04/28/2005	07/13/2005	07/14/2005	10/18/2005	01/31/2006	01/31/2006	04/13/2006	08/10/2006	08/11/2006	10/10/2006
			Field Sample ID	M200A1X	M200A2	M200A2X	M200A3X	M200A4	M200A4X	M200A5X	M200A6	M200A6X	M200A7X	M200A8	M200A8X	M200A9X
			SDG	NFE17	NFE18	NFE18	GWC20	951288	951288	963655	976361	976361	985688	1001382	1001382	1009212
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	9.26	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	0.45	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-195	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	6.98	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.5J	-	-	10.5J	-	-	9.3U	-	-	10U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	0.9U	0.5U	-	0.5U	0.5U	-	0.7J	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	19200	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200
			Sample Date	01/25/2007	01/25/2007	05/08/2007	11/14/2007	01/16/2008	01/17/2008	05/16/2008	07/10/2008	07/11/2008	10/10/2008	01/22/2009	01/23/2009	04/28/2009
			Field Sample ID	M200B1	M200B1X	M200B2X	M200B4X	M200B5	M200B5X	M200B6X	M200B7	M200B7X	M200B8X	M200B9	M200B9X	M200C1X
			SDG	1023101	1023101	1037238	1065612	1073788	1073788	1091830	1100292	1100292	1114607	1129356	1129356	1142383
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	9.97	-	-	10.06	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	0.18	-	-	0	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-150	-	-	57	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	7.47	-	-	4.20	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10U	-	-	-	11.0J	-	-	18.1J	-	-	50.0U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	1U	-	3U	0.5U	-	0.5U	5U	-	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200
			Sample Date	08/10/2009	08/11/2009	10/22/2009	01/26/2010	01/27/2010	04/15/2010	08/04/2010	08/05/2010	11/11/2010	03/01/2011	03/02/2011	04/12/2011	07/06/2011
			Field Sample ID	M200C2	M200C2X	M200C3X	M200C4	M200C4X	M200C5X	M200C6	M200C6X	M200C7X	M200C8	M200C8X	M200C9X	M200D1
			SDG	1157187	1157187	1167632	1180279	1180279	RFS39	RFS62	RFS62	RFS80	RFS94	RFS94	RFT07	RFT39
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	10.01	-	-	0.87	-	1.77	3.16	0	0	0.81	0.53	7.61	3.01
DO	mg/L	N	NS	4.13	-	-	10.06	-	11.45	14.9	11.03	10.84	16.18	11.52	11.63	13.2
ORP	millivolts	N	NS	-182	-	-	89	-	135	-165	-167	-150	-81	-155	-111	-135
pH	pH Units	N	NS	6.41	-	-	7.35	-	7.15	8.97	8.85	9.16	7.79	7.12	7.16	7.23
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	8.2J	-	-	7.2U	-	-	11.6J	-	-	50.1J	-	-	5.1U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200
			Sample Date	07/06/2011	10/18/2011	02/01/2012	02/02/2012	04/05/2012	07/10/2012	07/10/2012	07/11/2012	07/11/2012	10/18/2012	01/28/2013	01/29/2013	04/18/2013
			Field Sample ID	M200D1X	M200D2X	M200D3	M200D3X	M200D4X	D0710121	M200D5	D0711121	M200D5X	M200D6X	M200D7	M200D7X	M200D8X
			SDG	RFT39	RFT79	RFU06	RFU06	RFU39	RFV06	RFV06	RFV06	RFV06	RFV80	RFX42	RFX42	RFY95
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.01	-	2.95	1.05	0.02	2.58	2.58	2.26	2.26	3.15	11.09	10.89	11.49
DO	mg/L	N	NS	13.2	-	18.95	11.22	10.91	18.06	18.06	11.18	11.18	11.11	2.12	2.6	2.89
ORP	millivolts	N	NS	-135	-	-83	-105	-129	-111	-111	-220	-220	-198	-235	-274	-163
pH	pH Units	N	NS	7.23	-	7.41	7.38	7.40	7.16	7.16	7.56	7.56	7.50	7.44	7.19	7.10
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	9.1J	-	-	7.0J	8.5J	-	-	-	2.2	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	3U	-	0.5U	0.5U	-	-	0.5U	0.5U	0.5U	-	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200
			Sample Date	07/18/2013	07/19/2013	10/09/2013	02/19/2014	02/20/2014	04/25/2014	07/16/2014	07/17/2014	10/15/2014	01/22/2015	01/23/2015	04/24/2015	07/29/2015
			Field Sample ID	M200D9	M200D9X	M200E1X	M200E2	M200E2X	M200E3X	M200E4	M200E4X	M200E5X	M200E6	M200E6X	M200E7X	M200E8
			SDG	RFB45	RFB45	CS026	CS064	CS064	CS091	CS126	CS126	CS171	CS198	CS198	CS223	CS268
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	10.49	10.67	-	11.43	13.54	11.43	10.69	10.52	10.89	11.74	11.47	11.66	-
DO	mg/L	N	NS	0.38	-0.12	-	1.23	0.4	2.38	2.84	0.44	-0.1	0.77	0	1.38	-
ORP	millivolts	N	NS	-180	-207	-	-174	-176	-281	103	-65	-61	-151	-280	-169	-
pH	pH Units	N	NS	7.38	7.39	-	7.24	7.30	7.29	6.92	7.10	7.33	7.19	7.29	7.26	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	13.2	-	-	6.0	-	-	8.9	-	-	10.3	-	-	10.2
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1UJ	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-200	MW-200	MW-200	MW-200	MW-200	MW-200	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201
			Sample Date	07/30/2015	10/15/2015	02/08/2018	02/08/2018	02/09/2018	02/09/2018	05/04/2005	08/01/2005	08/02/2005	10/20/2005	01/30/2006	01/31/2006	04/26/2006
			Field Sample ID	M200E8X	M200E9X	D0208181	M200F6	D0209181	M200F6X	M201A1X	M201A2	M201A2X	M201A5X	M201A6	M201A6X	M201A7X
			SDG	CS268	CS299	CS644	CS644	CS644	CS644	942145	953731	953731	964074	976361	976361	987154
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	11.11	10.81	-	-	-	-	-	4.02	-	-	-	-	-
DO	mg/L	N	NS	2.1	1.7	-	-	-	-	-	2.29	-	-	-	-	-
ORP	millivolts	N	NS	-123	-134	-	-	-	-	-	-199	-	-	-	-	-
pH	pH Units	N	NS	5.92	7.01	-	-	-	-	-	6.58	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	10.5	11.0	-	-	-	17.6J	-	-	9.3U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5UJ	-	-	0.5UJ	0.5UJ	0.5U	-	0.8J	0.5U	-	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201
			Sample Date	08/16/2006	08/17/2006	10/12/2006	01/30/2007	01/31/2007	05/01/2007	07/26/2007	07/26/2007	11/13/2007	05/08/2008	07/09/2008	07/09/2008	10/08/2008
			Field Sample ID	M201A8	M201A8X	M201A9X	M201B1	M201B1X	M201B2X	M201B3	M201B3X	M201B4X	M201B5X	M201B6	M201B6X	M201B8X
			SDG	1002094	1002094	1009631	1023785	1023785	1036141	1048920	1048920	1065392	1090330	1100065	1100065	1114122
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	3.74	3.74	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	0.4	0.4	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-125	-125	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	6.42	6.42	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10U	-	-	10U	-	-	10.0U	-	-	-	10.2U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	-	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201
			Sample Date	02/11/2009	02/12/2009	04/30/2009	08/17/2009	08/18/2009	10/20/2009	02/04/2010	02/05/2010	04/20/2010	08/04/2010	08/05/2010	11/10/2010	03/03/2011
			Field Sample ID	M201B9	M201B9X	M201C1X	M201C2	M201C2X	M201C3X	M201C4	M201C4X	M201C5X	M201C6	M201C6X	M201C7X	M201C8
			SDG	1132133	1132133	1142830	1158153	1158153	1167217	1181719	1181719	RFS39	RFS62	RFS62	RFS78	RFS95
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.7	-	-	4	-	-	0.79	-	5.05	1.2	1.52	0	0.89
DO	mg/L	N	NS	0	-	-	5.87	-	-	4.38	-	4.74	0	4.51	4.42	10.03
ORP	millivolts	N	NS	-43	-	-	-6	-	-	29	-	121	-112	22	103	-126
pH	pH Units	N	NS	6.56	-	-	6.43	-	-	7.06	-	6.96	7.95	6.33	6.31	7.18
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.0U	-	-	7.2U	-	-	7.2U	-	-	9.8U	-	-	9.8U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201
			Sample Date	03/04/2011	04/21/2011	07/13/2011	07/13/2011	07/14/2011	07/14/2011	10/11/2011	10/11/2011	01/30/2012	01/31/2012	04/11/2012	04/11/2012	07/09/2012
			Field Sample ID	M201C8X	M201C9X	D0713111	M201D1	D0714111	M201D1X	D1011111	M201D2X	M201D3	M201D3X	D0411121	M201D4X	M201D5
			SDG	RFS95	RFT11	RFT42	RFT42	RFT42	RFT42	RFT77	RFT77	RFU04	RFU04	RFU40	RFU40	RFV02
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	FD	REG	FD	REG	REG	REG	FD	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.86	6.94	5.17	5.17	2.21	2.21	2.48	2.48	0.23	5.12	6.02	6.02	1.34
DO	mg/L	N	NS	3.64	4.27	12.63	12.63	4.1	4.1	5.57	5.57	13.34	3.99	5.37	5.37	13.15
ORP	millivolts	N	NS	-30	-270	-143	-143	164	164	93	93	-134	268	74	74	-174
pH	pH Units	N	NS	7.16	5.34	7.21	7.21	5.99	5.99	6.43	6.43	7.76	5.76	5.69	5.69	7.97
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	7.5J	5.1U	-	-	-	-	5.1U	-	-	-	6.8U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	-	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201
			Sample Date	07/10/2012	10/16/2012	01/30/2013	01/31/2013	04/23/2013	07/22/2013	07/23/2013	10/15/2013	10/15/2013	03/17/2014	03/18/2014	05/15/2014	07/17/2014
			Field Sample ID	M201D5X	M201D6X	M201D7	M201D7X	M201D8X	M201D9	M201D9X	D1015132	M201E1X	M201E2	M201E2X	M201E3X	M201E4
			SDG	RFV02	RFV69	RFX43	RFX43	RFZ04	RFB48	RFB48	CS028	CS028	CS074	CS074	CS098	CS127
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.09	4.33	3.6	3.9	4.11	3.62	3.78	-	-	4.16	4.17	3.79	3.9
DO	mg/L	N	NS	4.27	4.9	1.83	3.61	7.69	2.1	1.2	-	-	5.68	6.17	5.95	3.3
ORP	millivolts	N	NS	198	159	-289	-232	-112	-185	-178	-	-	-96	-35	-205	-101
pH	pH Units	N	NS	5.65	5.58	7.43	7.67	6.55	7.18	6.22	-	-	7.60	8.28	7.73	7.33
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	0.40U	-	-	0.42U	-	-	-	0.78U	-	-	0.83J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-202	MW-202	MW-202
			Sample Date	07/18/2014	10/10/2014	01/20/2015	01/21/2015	04/24/2015	07/29/2015	07/30/2015	10/14/2015	02/13/2018	02/14/2018	12/29/2004	12/29/2004	01/28/2005
			Field Sample ID	M201E4X	M201E5X	M201E6	M201E6X	M201E7X	M201E8	M201E8X	M201E9X	M201F6	M201F6X	M202A1	M202A1X	M202A2
			SDG	CS127	CS169	CS197	CS197	CS223	CS268	CS268	CS298	CS646	CS646	NFE17	NFE17	NFE18
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.02	4.12	4	3.8	4.06	-	4.27	12.74	-	-	-	-	-
DO	mg/L	N	NS	2.28	1.83	0.42	3.06	8.93	-	1.48	1.5	-	-	-	-	-
ORP	millivolts	N	NS	186	75	-165	-75	-83	-	-134	165	-	-	-	-	-
pH	pH Units	N	NS	5.99	6.23	7.47	6.86	7.94	-	8.23	8.55	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	0.82U	-	-	0.54U	-	-	0.72U	-	4.7U	-	4.7U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	1870	-	2410
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202
			Sample Date	01/28/2005	05/04/2005	08/03/2005	08/04/2005	10/20/2005	01/30/2006	01/31/2006	04/26/2006	08/15/2006	08/15/2006	10/11/2006	01/31/2007	01/31/2007
			Field Sample ID	M202A2X	M202A3X	M202A4	M202A4X	M202A5X	M202A6	M202A6X	M202A7X	M202A8	M202A8X	M202A9	M202B1	M202B1X
			SDG	NFE18	942145	954105	954105	964074	976361	976361	987154	1001693	1001693	1009631	1023785	1023785
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	11.1	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	2.22	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-92	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	8.62	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	9.3U	-	-	9.3U	-	-	10U	-	-	10U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3U	0.7J	-	0.5U	0.5U	-	3U	0.5U	-	0.5U	0.6J	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202
			Sample Date	05/03/2007	08/01/2007	08/02/2007	11/13/2007	05/08/2008	07/09/2008	07/10/2008	10/08/2008	02/11/2009	02/12/2009	04/30/2009	08/17/2009	08/18/2009
			Field Sample ID	M202B2X	M202B3	M202B3X	M202B4X	M202B5X	M202B6	M202B6X	M202B8X	M202B9	M202B9X	M202C1X	M202C2	M202C2X
			SDG	1036614	1049722	1049722	1065392	1090330	1100065	1100065	1114122	1132133	1132133	1142830	1158153	1158153
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	11.55	-	-	11.57	-	-	11.4	-
DO	mg/L	N	NS	-	-	-	-	-	0.15	-	-	0	-	-	474	-
ORP	millivolts	N	NS	-	-	-	-	-	-128	-	-	2	-	-	-204	-
pH	pH Units	N	NS	-	-	-	-	-	8.07	-	-	7.68	-	-	7.27	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	-	-	-	10.2U	-	-	10.0U	-	-	7.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.6J	-	1U	3U	0.6J	-	5U	0.5U	-	1U	1J	-	1J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202
			Sample Date	10/20/2009	02/04/2010	02/05/2010	04/20/2010	08/04/2010	08/05/2010	11/10/2010	03/03/2011	03/04/2011	04/21/2011	07/13/2011	07/14/2011	10/11/2011
			Field Sample ID	M202C3X	M202C4	M202C4X	M202C5X	M202C6	M202C6X	M202C7X	M202C8	M202C8X	M202C9X	M202D1	M202D1X	M202D2X
			SDG	1167217	1181719	1181719	RFS39	RFS62	RFS62	RFS78	RFS95	RFS95	RFT11	RFT42	RFT42	RFT77
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	0.06	-	0	1.64	0	0	0.65	0.79	0	2.19	2.6	7.57
DO	mg/L	N	NS	-	11.76	-	11.26	13.69	12.07	11.64	14.87	11.71	11.44	14.55	11.46	10.92
ORP	millivolts	N	NS	-	-127	-	227	-173	-199	-32	-135	-142	-142	-85	-146	-90
pH	pH Units	N	NS	-	7.71	-	7.13	8.58	8.86	8.10	7.17	6.99	6.78	6.66	6.91	6.96
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	7.2U	-	-	9.8U	-	-	9.8U	-	-	8.3J	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1J	-	2J	2J	-	1J	1J	-	2J	2J	-	2J	3U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202
			Sample Date	01/30/2012	01/31/2012	04/11/2012	07/09/2012	07/10/2012	10/16/2012	01/30/2013	01/31/2013	04/23/2013	07/22/2013	07/23/2013	10/15/2013	03/17/2014
			Field Sample ID	M202D3	M202D3X	M202D4X	M202D5	M202D5X	M202D6X	M202D7	M202D7X	M202D8X	M202D9	M202D9X	M202E1X	M202E2
			SDG	RFU04	RFU04	RFU40	RFV02	RFV02	RFV69	RFX43	RFX43	RFZ04	RFB48	RFB48	CS028	CS074
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.95	0.15	1.11	0.75	2.54	3.57	11.4	11.87	-	11.64	11.16	-	12.82
DO	mg/L	N	NS	15.71	11.87	11.98	15.46	11.98	11.51	4.91	0.91	-	0.79	0.36	-	5.18
ORP	millivolts	N	NS	-37	-165	-141	-96	-232	-200	-190	-262	-	-178	-239	-	-103
pH	pH Units	N	NS	7.41	6.80	7.02	7.66	7.80	7.18	7.08	7.05	-	7.60	7.48	-	6.96
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	5.1U	-	-	34.0U	-	-	2.0U	-	-	4.2U	-	-	0.78U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	2J	2J	-	1J	2J	-	2J	2J	-	1J	1J	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-202
			Sample Date	03/18/2014	05/15/2014	07/17/2014	07/18/2014	10/10/2014	01/20/2015	01/21/2015	04/24/2015	07/29/2015	07/30/2015	10/14/2015	02/13/2018	02/14/2018
			Field Sample ID	M202E2X	M202E3X	M202E4	M202E4X	M202E5X	M202E6	M202E6X	M202E7X	M202E8	M202E8X	M202E9X	M202F6	M202F6X
			SDG	CS074	CS098	CS127	CS127	CS169	CS197	CS197	CS223	CS268	CS268	CS298	CS646	CS646
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	11.87	11.42	11.33	11.67	11.55	12.02	11.58	12.11	-	11.77	11.82	-	-
DO	mg/L	N	NS	0.88	1.74	1.92	0.74	0.63	0.42	-0.26	1.95	-	3.44	1.6	-	-
ORP	millivolts	N	NS	-177	-288	112	42	-202	-169	-209	11	-	-68	132	-	-
pH	pH Units	N	NS	7.36	7.19	7.02	7.20	7.38	7.71	7.71	7.56	-	6.75	7.33	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	0.82U	-	-	2.0J	-	-	1.9J	-	-	3.1J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.8J	0.9J	-	1	1	-	0.6J	1UJ	-	0.6J	3U	-	0.5UJ
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203
			Sample Date	04/28/2004	12/28/2004	12/29/2004	01/25/2005	01/26/2005	08/03/2005	08/04/2005	10/20/2005	01/25/2006	01/26/2006	04/20/2006	08/14/2006	08/15/2006
			Field Sample ID	M203A3X	M203A1	M203A1X	M203A2	M203A2X	M203A4	M203A4X	M203A5X	M203A6	M203A6X	M203A7X	M203A8	M203A8X
			SDG	GWC20	NFE17	NFE17	NFE18	NFE18	954105	954105	964074	975859	975859	986437	1001693	1001693
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	2.19	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-122	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	6.15	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	17.4	-	5.2J	-	18.8J	-	-	9.3U	-	-	10U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3J	-	7	-	8	-	1J	0.5U	-	0.5U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	132000	-	38800	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203
			Sample Date	10/12/2006	01/24/2007	01/25/2007	05/03/2007	07/30/2007	07/31/2007	11/06/2007	03/12/2008	03/13/2008	05/08/2008	07/09/2008	07/10/2008	10/07/2008
			Field Sample ID	M203A9X	M203B1	M203B1X	M203B2X	M203B3	M203B3X	M203B4X	M203B5	M203B5X	M203B6X	M203B7	M203B7X	M203B8X
			SDG	1009631	1023101	1023101	1036614	1049322	1049322	1064326	1081557	1081557	1090330	1100065	1100065	1113891
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	4.42	-	-	4.56	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	0	-	-	0.51	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-102	-	-	-111	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	6.87	-	-	6.95	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10U	-	-	10.0U	-	-	10.0U	-	-	10.2U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203
			Sample Date	02/11/2009	02/11/2009	02/12/2009	02/12/2009	04/30/2009	08/14/2009	08/14/2009	10/20/2009	02/02/2010	02/03/2010	04/20/2010	07/26/2010	07/27/2010
			Field Sample ID	D0211091	M203B9	D0212091	M203B9X	M203C1X	M203C2	M203C2X	M203C3X	M203C4	M203C4X	M203C5X	M203C6	M203C6X
			SDG	1132133	1132133	1132133	1132133	1142830	1157773	1157773	1167217	1181327	1181327	RFS39	RFS59	RFS59
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.57	4.57	-	-	-	4.72	4.72	-	2.09	-	0.22	1.69	0
DO	mg/L	N	NS	0	0	-	-	-	0.45	0.45	-	4.71	-	4.77	12.76	8.14
ORP	millivolts	N	NS	-51	-51	-	-	-	-10	-10	-	-65	-	133	-115	-99
pH	pH Units	N	NS	6.52	6.52	-	-	-	6.32	6.32	-	6.51	-	7.21	7.54	7.01
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.0U	10.0U	-	-	-	7.2U	-	-	7.2U	-	-	9.8U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	-	0.5U	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203
			Sample Date	11/10/2010	03/04/2011	03/04/2011	04/14/2011	07/14/2011	07/14/2011	10/11/2011	01/31/2012	01/31/2012	04/11/2012	07/09/2012	07/10/2012	10/16/2012
			Field Sample ID	M203C7X	M203C8	M203C8X	M203C9X	M203D1	M203D1X	M203D2X	M203D3	M203D3X	M203D4X	M203D5	M203D5X	M203D6X
			SDG	RFS78	RFS95	RFS95	RFT08	RFT42	RFT42	RFT77	RFU04	RFU04	RFU40	RFV02	RFV02	RFV69
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0	3.1	3.1	0	0.56	0.56	0.59	0.93	0.93	1.62	1.5	1.91	4.11
DO	mg/L	N	NS	4.64	5.51	5.51	4.7	4.86	4.86	4.41	4.52	4.52	4.81	13.21	4.74	4.97
ORP	millivolts	N	NS	-33	-44	-44	15	-57	-57	-33	11	11	-111	-110	-102	-89
pH	pH Units	N	NS	7.66	7.64	7.64	7.32	7.02	7.02	7.31	36.20	36.20	7.57	7.29	7.34	7.37
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.8U	-	-	10.3J	-	-	5.1U	-	-	6.8U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203
			Sample Date	01/30/2013	01/31/2013	04/23/2013	07/22/2013	07/23/2013	10/15/2013	03/17/2014	03/18/2014	04/22/2014	07/17/2014	07/18/2014	10/10/2014	01/20/2015
			Field Sample ID	M203D7	M203D7X	M203D8X	M203D9	M203D9X	M203E1X	M203E2	M203E2X	M203E3X	M203E4	M203E4X	M203E5X	M203E6
			SDG	RFX43	RFX43	RFZ04	RFB48	RFB48	CS028	CS074	CS074	CS089	CS127	CS127	CS169	CS197
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.46	4.99	4.71	4.78	4.65	-	4.58	4.79	5.15	4.54	4.59	4.61	4.57
DO	mg/L	N	NS	2.43	0.97	1.25	0.22	-0.11	-	5.95	2.21	3.86	3.02	0.62	0.72	1.01
ORP	millivolts	N	NS	-253	-328	-214	-157	-301	-	-90	-132	-279	162	98	-118	-208
pH	pH Units	N	NS	7.19	7.47	7.50	7.03	7.30	-	7.41	7.88	7.37	7.04	7.11	7.15	8.22
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	0.40U	-	-	0.42U	-	-	0.78U	-	-	0.82U	-	-	0.82U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204
			Sample Date	01/21/2015	04/29/2015	07/27/2015	07/28/2015	10/14/2015	02/13/2018	02/14/2018	12/28/2004	12/29/2004	01/27/2005	01/28/2005	04/28/2005	08/04/2005
			Field Sample ID	M203E6X	M203E7X	M203E8	M203E8X	M203E9X	M203F6	M203F6X	M204A1	M204A1X	M204A2	M204A2X	M204A3X	M204A4
			SDG	CS197	CS224	CS267	CS267	CS298	CS646	CS646	NFE17	NFE17	NFE18	NFE18	GWC20	954105
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.68	4.44	-	4.7	4.61	-	-	-	-	-	-	-	10.42
DO	mg/L	N	NS	-0.96	8.36	-	2.11	3.03	-	-	-	-	-	-	-	2.76
ORP	millivolts	N	NS	-279	-131	-	-145	-121	-	-	-	-	-	-	-	-10
pH	pH Units	N	NS	7.39	6.96	-	8.59	7.52	-	-	-	-	-	-	-	8.12
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	0.78J	-	-	1.1J	-	5.1J	-	4.8J	-	-	9.3U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	2330	-	8890	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204
			Sample Date	08/04/2005	10/11/2005	01/25/2006	01/26/2006	04/20/2006	08/14/2006	08/15/2006	10/12/2006	01/24/2007	01/25/2007	05/03/2007	08/15/2007	08/16/2007
			Field Sample ID	M204A4X	M204A5X	M204A6	M204A6X	M204A7X	M204A8	M204A8X	M204A9X	M204B1	M204B1X	M204B2X	M204B3	M204B3X
			SDG	954105	962699	975859	975859	986437	1001693	1001693	1009631	1023101	1023101	1036614	1051887	1051887
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	10.42	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	2.76	-	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-10	-	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	8.12	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	9.3U	-	-	10U	-	-	10U	-	-	10.0U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204
			Sample Date	11/06/2007	03/12/2008	03/12/2008	03/13/2008	03/13/2008	05/14/2008	07/09/2008	07/10/2008	10/07/2008	02/11/2009	02/12/2009	04/30/2009	08/14/2009
			Field Sample ID	M204B4X	D0312081	M204B5	D0313081	M204B5X	M204B6X	M204B7	M204B7X	M204B8X	M204B9	M204B9X	M204C1X	M204C2
			SDG	1064326	1081557	1081557	1081557	1081557	1091362	1100065	1100065	1113891	1132133	1132133	1142830	1157773
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	10.65	10.65	-	-	-	10.65	-	-	11.09	-	-	10.76
DO	mg/L	N	NS	-	0.04	0.04	-	-	-	0.63	-	-	0	-	-	0.75
ORP	millivolts	N	NS	-	-86	-86	-	-	-	-127	-	-	56	-	-	-140
pH	pH Units	N	NS	-	7.43	7.43	-	-	-	7.38	-	-	7.31	-	-	6.86
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	10.0U	-	-	-	20.2	-	-	10.0U	-	-	7.2U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	5U	-	-	0.5U	0.5U	0.5U	-	5U	5U	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204
			Sample Date	08/14/2009	10/20/2009	02/02/2010	02/03/2010	04/20/2010	07/26/2010	07/27/2010	11/10/2010	03/03/2011	03/04/2011	04/14/2011	07/13/2011	07/14/2011
			Field Sample ID	M204C2X	M204C3X	M204C4	M204C4X	M204C5X	M204C6	M204C6X	M204C7X	M204C8	M204C8X	M204C9X	M204D1	M204D1X
			SDG	1157773	1167217	1181327	1181327	RFS39	RFS59	RFS59	RFS78	RFS95	RFS95	RFT08	RFT42	RFT42
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	10.76	-	0	-	0	2.54	0	0	6.74	0.74	-	3.31	1.99
DO	mg/L	N	NS	0.75	-	10.81	-	10.18	11.37	10.85	11.56	12.04	10.8	-	15.61	10.71
ORP	millivolts	N	NS	-140	-	31	-	127	-121	-40	22	-31	-54	-	65	-20
pH	pH Units	N	NS	6.86	-	7.09	-	6.20	7.37	6.76	7.46	7.38	7.39	-	6.86	6.92
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	7.2U	-	-	9.8U	-	-	9.8U	-	-	5.1U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204
			Sample Date	10/11/2011	01/30/2012	01/31/2012	04/11/2012	07/09/2012	07/10/2012	10/16/2012	01/31/2013	01/31/2013	04/23/2013	07/22/2013	07/23/2013	10/15/2013
			Field Sample ID	M204D2X	M204D3	M204D3X	M204D4X	M204D5	M204D5X	M204D6X	M204D7	M204D7X	M204D8X	M204D9	M204D9X	M204E1X
			SDG	RFT77	RFU04	RFU04	RFU40	RFV02	RFV02	RFV69	RFX43	RFX43	RFZ04	RFB48	RFB48	CS028
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.44	9.99	0.27	1.23	5.05	2.23	3.96	10.67	10.67	10.92	10.28	9.88	-
DO	mg/L	N	NS	9.81	11.74	10.76	10.59	12.09	10.85	10.55	2.03	2.03	0.44	1.04	0.03	-
ORP	millivolts	N	NS	-9	40	-107	-113	132	-33	-43	-274	-274	-276	-137	-193	-
pH	pH Units	N	NS	7.00	4.68	6.79	7.41	5.59	7.47	7.59	7.44	7.44	6.99	7.23	7.11	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	5.1U	-	-	34.0U	-	-	2.0U	-	-	2.1U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	1U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204
			Sample Date	03/17/2014	03/18/2014	04/22/2014	07/22/2014	07/23/2014	10/10/2014	01/20/2015	01/21/2015	04/29/2015	04/29/2015	07/27/2015	07/28/2015	10/14/2015
			Field Sample ID	M204E2	M204E2X	M204E3X	M204E4	M204E4X	M204E5X	M204E6	M204E6X	D0429151	M204E7X	M204E8	M204E8X	M204E9X
			SDG	CS074	CS074	CS089	CS129	CS129	CS169	CS197	CS197	CS224	CS224	CS267	CS267	CS298
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	10.7	10.7	105.8	10.41	10.52	10.48	11.31	11.05	11.02	11.02	-	11.2	10.25
DO	mg/L	N	NS	3.06	0.82	3.49	2.47	0.26	0.61	1.61	-0.43	2.22	2.22	-	1.51	1.77
ORP	millivolts	N	NS	-123	-174	-273	197	-336	-118	-137	-265	-102	-102	-	-53	-67
pH	pH Units	N	NS	6.87	7.08	7.08	6.93	7.08	6.98	7.33	7.23	7.67	7.67	-	7.10	7.09
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	0.78U	-	-	0.82J	-	-	1.3J	-	-	-	1.5J	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	0.5UJ	-	1UJ	3U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-204	MW-204	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205
			Sample Date	02/13/2018	02/14/2018	12/30/2004	12/30/2004	01/26/2005	01/26/2005	04/26/2005	07/11/2005	07/12/2005	10/11/2005	01/25/2006	01/26/2006	04/13/2006
			Field Sample ID	M204F6	M204F6X	M205A1	M205A1X	M205A2	M205A2X	M205A3X	M205A4	M205A4X	M205A5X	M205A6	M205A6X	M205A7X
			SDG	CS646	CS646	NFE17	NFE17	NFE18	NFE18	GWC20	950875	950875	962699	975859	975859	985688
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	6.06	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	1.02	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-158	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	6.81	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.5J	-	16.0	-	7.0J	-	-	9.3U	-	-	9.3U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5UJ	-	43	-	22	57	-	34	24	-	36	69
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	42700	-	14200	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205
			Sample Date	08/10/2006	08/11/2006	10/10/2006	01/22/2007	01/23/2007	04/26/2007	07/24/2007	07/25/2007	11/01/2007	01/24/2008	01/25/2008	05/14/2008	07/10/2008
			Field Sample ID	M205A8	M205A8X	M205A9X	M205B1	M205B1X	M205B2X	M205B3	M205B3X	M205B4X	M205B5	M205B5X	M205B6X	M205B7
			SDG	1001382	1001382	1009212	1022693	1022693	1035529	1048553	1048553	1063753	1074855	1074855	1091362	1100292
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10U	-	-	10U	-	-	10.0U	-	-	10.0U	-	-	10.2U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	38	21	-	7	70	-	47	13	-	10	37	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205
			Sample Date	07/11/2008	10/07/2008	01/22/2009	01/23/2009	04/22/2009	08/03/2009	08/04/2009	10/22/2009	01/26/2010	01/27/2010	04/22/2010	07/21/2010	07/22/2010
			Field Sample ID	M205B7X	M205B8X	M205B9	M205B9X	M205C1X	M205C2	M205C2X	M205C3X	M205C4	M205C4X	M205C5X	M205C6	M205C6X
			SDG	1100292	1113891	1129356	1129356	1141708	1156238	1156238	1167632	1180279	1180279	RFS39	RFS57	RFS57
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	7.03	-	-	-	-	-	0	-	0	3.16	0.98
DO	mg/L	N	NS	-	-	0	-	-	-	-	-	7.06	-	7.04	10.59	7.78
ORP	millivolts	N	NS	-	-	-127	-	-	-	-	-	-60	-	166	-164	-235
pH	pH Units	N	NS	-	-	5.11	-	-	-	-	-	6.89	-	6.58	6.20	6.02
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	10.0U	-	-	8.2J	-	-	7.2U	-	-	11.3J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	20	5U	-	12	33	-	3J	4J	-	8	22	-	2J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205
			Sample Date	10/29/2010	02/23/2011	02/24/2011	04/15/2011	07/05/2011	07/06/2011	10/14/2011	01/31/2012	02/01/2012	04/05/2012	07/11/2012	07/12/2012	10/11/2012
			Field Sample ID	M205C7X	M205C8	M205C8X	M205C9X	M205D1	M205D1X	M205D2X	M205D3	M205D3X	M205D4X	M205D5	M205D5X	M205D6X
			SDG	RFS76	RFS91	RFS91	RFT09	RFT39	RFT39	RFT78	RFU05	RFU05	RFU39	RFV08	RFV08	RFV63
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0	1.24	0.34	1.7	1.14	0.74	-	1.74	0	-0.58	1.27	0.04	-
DO	mg/L	N	NS	7.91	11.38	7.84	7.59	10.78	7.07	7.12	11.82	7.13	7.95	11.96	8.6	8.49
ORP	millivolts	N	NS	-102	-89	-119	-25	-127	-115	-29	-52	-111	-84	-123	-101	-
pH	pH Units	N	NS	6.76	7.20	7.29	6.95	7.04	6.63	6.92	7.53	7.07	7.19	6.93	6.85	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.8U	-	-	9.1J	-	-	5.1U	-	-	15.0J	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.9J	-	8	25	-	7	4J	-	2J	6	-	1J	2J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205
			Sample Date	02/04/2013	02/05/2013	05/08/2013	07/24/2013	07/25/2013	10/16/2013	02/20/2014	02/20/2014	05/02/2014	05/02/2014	07/22/2014	07/23/2014	10/01/2014
			Field Sample ID	M205D7	M205D7X	M205D8X	M205D9	M205D9X	M205E1X	M205E2	M205E2X	D0502141	M205E3X	M205E4	M205E4X	D1001141
			SDG	RFX45	RFX45	RFZ31	RFB73	RFB73	CS029	CS064	CS064	CS093	CS093	CS129	CS129	CS164
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	11.1	7.16	-	5.4	6.56	-	5.79	5.79	6.91	6.91	5.46	6.27	8.06
DO	mg/L	N	NS	0.39	0.11	-	0.68	-0.08	-	0.87	0.87	2.86	2.86	1.93	0.2	0.5
ORP	millivolts	N	NS	-298	-311	-	-150	-187	-	-159	-159	-248	-248	94	-353	-194
pH	pH Units	N	NS	7.05	7.14	-	7.12	7.09	-	7.39	7.39	7.02	7.02	6.88	6.91	7.03
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	2.0	-	-	18.7	-	-	4.2	-	-	-	10.7	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	4J	23	-	4J	0.5U	-	3J	17	16	-	4	1J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-205	MW-206	MW-206	MW-206	MW-206
			Sample Date	10/01/2014	01/14/2015	01/15/2015	04/29/2015	07/27/2015	07/28/2015	10/15/2015	02/07/2018	02/08/2018	12/30/2004	12/30/2004	01/26/2005	01/26/2005
			Field Sample ID	M205E5X	M205E6	M205E6X	M205E7X	M205E8	M205E8X	M205E9X	M205F6	M205F6X	M206A1	M206A1X	M206A2	M206A2X
			SDG	CS164	CS195	CS195	CS224	CS267	CS267	CS299	CS643	CS643	NFE17	NFE17	NFE18	NFE18
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.06	6.68	7.54	6.72	-	7.41	8.06	-	-	-	-	-	-
DO	mg/L	N	NS	0.5	2.87	1.96	4.44	-	1.69	3.52	-	-	-	-	-	-
ORP	millivolts	N	NS	-194	-155	-173	-140	-	-105	-55	-	-	-	-	-	-
pH	pH Units	N	NS	7.03	7.25	7.18	7.18	-	6.09	7.13	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	2.5	-	-	9.0	-	-	2.7	-	4.7U	-	12.6	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.9J	-	5	12	-	2J	0.6J	-	0.9J	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	5660	-	43600	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206
			Sample Date	04/26/2005	07/12/2005	07/12/2005	10/11/2005	01/25/2006	01/26/2006	04/13/2006	08/10/2006	08/11/2006	10/10/2006	01/30/2007	01/31/2007	05/08/2007
			Field Sample ID	M206A3X	M206A4	M206A4X	M206A5X	M206A6	M206A6X	M206A7X	M206A8	M206A8X	M206A9X	M206B1	M206B1X	M206B2X
			SDG	GWC20	950875	950875	962699	975859	975859	985688	1001382	1001382	1009212	1023785	1023785	1037238
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	9.02	9.02	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	0.59	0.59	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-199	-199	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	6.87	6.87	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.8J	-	-	9.3U	-	-	14.8J	-	-	10U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3U	-	0.9U	0.5U	-	3U	0.5U	-	0.5U	0.5U	-	0.5U	0.5J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206
			Sample Date	07/26/2007	07/26/2007	11/13/2007	01/24/2008	01/25/2008	05/14/2008	07/14/2008	07/15/2008	10/07/2008	01/22/2009	01/23/2009	04/22/2009	08/03/2009
			Field Sample ID	M206B3	M206B3X	M206B4X	M206B5	M206B5X	M206B6X	M206B7	M206B7X	M206B8X	M206B9	M206B9X	M206C1X	M206C2
			SDG	1048920	1048920	1065392	1074855	1074855	1091362	1100673	1100673	1113891	1129356	1129356	1141708	1156238
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	9.41	-	-	9.67	-	9.51	-
DO	mg/L	N	NS	-	-	-	-	-	-	0.16	-	-	0	-	1.58	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-145	-	-	85	-	-128	-
pH	pH Units	N	NS	-	-	-	-	-	-	6.83	-	-	4.62	-	6.12	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	21.2	-	-	10.0U	-	-	31.5	-	-	50.0U	-	-	12.4J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.6J	3U	-	0.6J	0.5U	-	0.7J	5U	-	0.8J	0.7J	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206
			Sample Date	08/04/2009	10/22/2009	01/26/2010	01/27/2010	04/22/2010	07/21/2010	07/22/2010	10/29/2010	02/23/2011	02/24/2011	04/15/2011	07/05/2011	07/06/2011
			Field Sample ID	M206C2X	M206C3X	M206C4	M206C4X	M206C5X	M206C6	M206C6X	M206C7X	M206C8	M206C8X	M206C9X	M206D1	M206D1X
			SDG	1156238	1167632	1180279	1180279	RFS39	RFS57	RFS57	RFS76	RFS91	RFS91	RFT09	RFT39	RFT39
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	0.3	-	0	3.1	0.77	-	0.84	0.67	-	2.49	0
DO	mg/L	N	NS	-	-	9.76	-	10.16	0	11.09	-	30.54	11.49	-	28.73	10.51
ORP	millivolts	N	NS	-	-	-73	-	167	-170	-169	-	-138	-127	-	-110	-129
pH	pH Units	N	NS	-	-	6.85	-	6.31	6.60	5.68	-	6.79	6.79	-	6.76	6.51
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	13.7J	-	-	18.0J	-	-	49.0U	-	-	7.1J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.6J	0.8J	-	0.5U	0.5U	-	0.6J	0.6J	-	0.5U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206
			Sample Date	10/16/2011	01/31/2012	02/01/2012	04/05/2012	07/11/2012	07/12/2012	10/11/2012	02/04/2013	02/05/2013	05/08/2013	07/24/2013	07/25/2013	10/16/2013
			Field Sample ID	M206D2X	M206D3	M206D3X	M206D4X	M206D5	M206D5X	M206D6X	M206D7	M206D7X	M206D8X	M206D9	M206D9X	D1016131
			SDG	RFT78	RFU05	RFU05	RFU39	RFV08	RFV08	RFV63	RFX45	RFX45	RFZ31	RFB73	RFB73	CS029
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	RE	REG	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	3.19	0.11	-0.52	1.18	0.05	1.5	9.53	10.5	-	10.02	9.96	-
DO	mg/L	N	NS	-	29.71	10.68	11.09	25.41	10.4	11.51	2.02	0.32	-	0.41	-0.01	-
ORP	millivolts	N	NS	-	-84	-158	-111	-127	-131	-334	-200	-262	-	-158	-165	-
pH	pH Units	N	NS	-	7.17	6.69	7.06	7.36	6.82	9.36	6.81	6.83	-	7.00	6.99	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	18.1J	-	-	30.2	-	-	2.9	-	-	19.9J	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5J	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.7J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206
			Sample Date	10/16/2013	02/20/2014	02/20/2014	05/02/2014	07/22/2014	07/23/2014	10/01/2014	01/14/2015	01/15/2015	04/29/2015	07/27/2015	07/28/2015	10/15/2015
			Field Sample ID	M206E1X	M206E2	M206E2X	M206E3X	M206E4	M206E4X	M206E5X	M206E6	M206E6X	M206E7X	M206E8	M206E8X	M206E9X
			SDG	CS029	CS064	CS064	CS093	CS129	CS129	CS164	CS195	CS195	CS224	CS267	CS267	CS299
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	9.71	9.71	9.88	9.84	9.65	10.56	10.89	10.75	10.96	-	10.66	30.61
DO	mg/L	N	NS	-	0.73	0.73	1.79	3.8	0.3	0.62	1.19	0.55	1.97	-	2.17	2.56
ORP	millivolts	N	NS	-	-166	-166	-191	178	-321	-187	-166	-152	-151	-	-133	-91
pH	pH Units	N	NS	-	6.82	6.82	6.89	6.79	6.85	6.80	6.98	7.01	6.91	-	6.75	6.53
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	5.8	-	-	17.8	-	-	3.3	-	-	13.5	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.6J	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	1UJ	0.5UJ
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-206	MW-206	MW-207	MW-207	MW-207	MW-207	MW-207	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21
			Sample Date	02/07/2018	02/08/2018	06/19/2008	11/20/2017	11/20/2017	02/09/2018	02/12/2018	10/21/2002	10/21/2002	03/10/2003	09/26/2003	03/04/2004	09/21/2004
			Field Sample ID	M206F6	M206F6X	M207A1	M207A2	M207A2X	M207A3	M207A3X	M021A1X	M021A1Y	M021A2Y	M021A3	M021A3A	M021A4
			SDG	CS643	CS643	1097627	CQ897	CQ897	CQ970	CQ971	RFE33	RFE33	RFE67	RFE87	RFE98	RFF24
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	361000	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	410U	410U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	361000	335000	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	7.0	-	-	5.2	-	7.7	-	4.9U	-	4.9U	4.9U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	6.2	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5UJ	270	-	120	-	290	-	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	13000	-	23100	-	20700	-	21600	17300	-	-
Iron	ug/L	Y	300	-	-	-	-	-	18100	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	40U	-	400U	40U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	6000U	2000J	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21
			Sample Date	05/25/2005	10/25/2005	05/24/2006	11/07/2006	05/18/2007	07/31/2008	05/19/2009	06/08/2010	07/20/2011	03/16/2012	03/01/2013	01/22/2018
			Field Sample ID	M021A5	M021A6	M021A7	M021A8	M021A9	M021B1X	M021B2X	M021B3X-100608	M021B4X	M021B5X	M021B6X	M021B9X
			SDG	RFF55	964663	990907	1013229	1039073	1103309	1145500	RFS46	RFT45	RFU23	RFX87	CQ946
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	1.08	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	16.11	17.41	13.62	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	0	-58	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	0.00	6.21	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	40U	40U	40U	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-21	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210
			Sample Date	03/12/2018	01/31/2005	02/01/2005	05/31/2005	06/01/2005	10/27/2005	10/28/2005	05/30/2006	05/31/2006	11/06/2006	11/07/2006	05/23/2007	05/24/2007
			Field Sample ID	M021C1X	M210A1	M210A1X	M210A2	M210A2X	M210A3	M210A3X	M210A4	M210A4X	M210A5	M210A5X	M210A6	M210A6X
			SDG	CQ998	LNA11	LNA11	RFF57	RFF57	965244	965244	991597	991597	1013229	1013229	1039857	1039857
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	2.71	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	0.21	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-136	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	6.80	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	704000	-	730000	-	558000	-	913000	-	1180000	-	1030000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	410U	-	410U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	3U	-	0.8J	-	0.7J	-	0.8J	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	24700	-	21300	-	16100	-	13900	-	4000J	-	26500	-
Iron	ug/L	Y	300	-	22900	-	21300	-	6310	-	2580	-	501J	-	23500	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	400U	-	40U	-	200U	-	120	-	800U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	275000	-	434000	-	425000	-	86900	-	15000U	-	13000
Sulfide	ug/L	N	NS	-	-	530U	-	530U	-	530U	-	4200U	-	650J	-	3200

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210
			Sample Date	12/17/2007	12/18/2007	08/11/2008	08/12/2008	11/05/2008	11/06/2008	07/23/2009	07/24/2009	11/23/2009	11/24/2009	06/07/2010	06/08/2010
			Field Sample ID	M210A7	M210A7X	M210A8	M210A8X	M210A9	M210A9X	M210B1	M210B1X	M210B2	M210B2X	M210B3-100607	M210B3X-100608
			SDG	1070340	1070340	1105054	1105054	1118813	1118813	1154932	1154932	1172674	1172674	RFS46	RFS46
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.88	-	0.68	-	2.26	-	0.5	-	1.99	-	1.75	0
DO	mg/L	N	NS	2.54	-	1.52	-	0	-	2.6	-	1.32	-	0	8.82
ORP	millivolts	N	NS	9	-	-117	-	-71	-	-121	-	-87	-	-119	-66
pH	pH Units	N	NS	7.22	-	6.54	-	6.54	-	6.45	-	6.39	-	6.86	6.86
Alkalinity to pH 4.5	ug/L	N	NS	-	1100000	-	1030000	-	1130000	-	1210000	-	1120000	-	1040000
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	10.2U	-	10.0U	-	7.2U	-	7.2U	-	7.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	3U	-	3U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	8260	-	27900	-	19800	-	41900	-	35100	-	27600	-
Iron	ug/L	Y	300	1810	-	26800	-	18900	-	36900	-	33200	-	22600	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	800U	-	400U	-	400U	-	400U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	5000U	-	25000U	-	12500U	-	34900	-	10000U	-	77700
Sulfide	ug/L	N	NS	-	530U	-	1700J	-	3700	-	2600	-	530U	-	1000J

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211
			Sample Date	09/22/2010	09/23/2010	06/15/2011	06/16/2011	03/13/2012	03/14/2012	01/31/2005	02/01/2005	05/31/2005	06/01/2005	10/26/2005	10/27/2005	05/24/2006
			Field Sample ID	M210B4	M210B4X	M210B5	M210B5X	M210B6	M210B6X	M211A1	M211A1X	M211A2	M211A2X	M211A3	M211A3X	M211A4
			SDG	RFS68	RFS68	RFT33	RFT33	RFU20	RFU20	LNA11	LNA11	RFF57	RFF57	965062	965062	991108
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	1.98	0.86	2.82	0.54	-	-	3.8	-	-	-	-
DO	mg/L	N	NS	-	-	11.16	9.68	11.35	10.19	-	-	0.56	-	-	-	-
ORP	millivolts	N	NS	-	-	-121	-137	-75	-117	-	-	-135	-	-	-	-
pH	pH Units	N	NS	-	-	6.91	6.77	6.97	6.57	-	-	7.07	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	1330000	-	-	-	-	-	472000	-	675000	-	601000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	-	-	-	-	410U	-	410U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	9.8U	-	5.1U	-	5.1U	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.9J	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	6400	-	22300	-	11400	-	9470	-	18100	-	46900	-	1190
Iron	ug/L	Y	300	589	-	-	-	-	-	6620	-	18600	-	37300	-	22900
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	200U	-	-	-	-	-	40U	-	400U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	50000U	-	-	-	-	-	36300	-	17400	-	299000	-
Sulfide	ug/L	N	NS	-	4100	-	-	-	-	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211
			Sample Date	05/25/2006	11/06/2006	11/07/2006	05/23/2007	05/24/2007	12/17/2007	12/18/2007	06/23/2008	06/24/2008	10/29/2008	10/30/2008	05/19/2009	05/19/2009
			Field Sample ID	M211A4X	M211A5	M211A5X	M211A6	M211A6X	M211A7	M211A7X	M211A8	M211A8X	M211A9	M211A9X	M211B1	M211B1X
			SDG	991108	1013229	1013229	1039857	1039857	1070340	1070340	1097656	1097656	1117661	1117661	1145500	1145500
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	3.11	-	3.26	-	2.52	2.52
DO	mg/L	N	NS	-	-	-	-	-	-	-	0.25	-	0	-	0.42	0.42
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-114	-	113	-	-128	-128
pH	pH Units	N	NS	-	-	-	-	-	-	-	7.12	-	6.81	-	6.77	6.77
Alkalinity to pH 4.5	ug/L	N	NS	653000	-	737000	-	711000	-	712000	-	639000	-	710000	-	1360000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5J	-	0.5U	-	0.5U	-	0.5U	-	5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	42000J	-	42000	-	27100	-	21200	-	7890	-	29100	-
Iron	ug/L	Y	300	-	42100J	-	31300	-	20600	-	9630	-	216	-	29200	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	2000U	-	40U	-	800U	-	40U	-	100	-	40U	-	690J
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	112000	-	1500J	-	7400	-	10700	-	10000U	-	2500U	-	125000U
Sulfide	ug/L	N	NS	530U	-	530U	-	600J	-	530U	-	530U	-	530U	-	20300

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211
			Sample Date	11/23/2009	11/24/2009	06/07/2010	06/08/2010	09/22/2010	09/23/2010	06/16/2011	03/14/2012	06/26/2013	06/26/2013	05/22/2014	07/01/2014
			Field Sample ID	M211B2	M211B2X	M211B3-100607	M211B3X-100608	M211B4	M211B4X	M211B5X	M211B6X	M211B7	M211B7X	M211B8	M211B9
			SDG	1172674	1172674	RFS46	RFS46	RFS68	RFS68	RFT33	RFU20	CP018	CP018	CS103	CP396
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.21	-	1	0	-	-	0.8	-	10	10	7.95	12.52
DO	mg/L	N	NS	0.94	-	9.36	2.19	-	-	3.18	-	0.99	0.99	1.46	0.58
ORP	millivolts	N	NS	-46	-	-127	-123	-	-	-1	-	-115	-115	-199	-128.2
pH	pH Units	N	NS	6.71	-	6.90	6.65	-	-	6.81	-	6.94	6.94	6.79	6.96
Alkalinity to pH 4.5	ug/L	N	NS	-	691000	-	600000	-	630000	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	10.2	-	17.1	10.2
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	6.7	-	-	7.4
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	26100	-	18700	-	6650	-	-	-	29800	-	71500	42000
Iron	ug/L	Y	300	3880	-	9540	-	798	-	-	-	20500	-	-	37000
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2500U	-	2500U	-	2500U	-	-	-	1500U	-	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-211	MW-212	MW-212	MW-212
			Sample Date	07/02/2014	08/05/2014	08/05/2014	09/26/2014	10/30/2014	03/12/2015	03/12/2015	03/24/2015	06/08/2015	09/16/2015	05/05/2008	05/06/2008	11/12/2008
			Field Sample ID	M211B9X	M211C1	M211C1X	M211C2	M211C3	M211C4	M211C4X	M211C5	M211C6	M211C7	M212A1	M212A1X	M212A2
			SDG	CP401	CP466	CP466	CS162	CS179	CP667	CP667	CS212	CS248	CS285	1089841	1089841	1120044
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	11.9	15.11	15.11	12.85	13.04	13.13	13.13	10.5	-	23.55	7.21	-	7.6
DO	mg/L	N	NS	2.79	1.36	1.36	0.22	1.77	4.57	4.57	7.16	-	3.1	1.41	-	0
ORP	millivolts	N	NS	-45.2	-91.1	-91.1	-30	-182	18	18	-61	-	-74	-107	-	-44
pH	pH Units	N	NS	6.57	6.63	6.63	6.94	6.80	6.36	6.36	6.79	-	6.84	6.14	-	6.95
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	339000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	12.4	-	23.1	19.4	2.2	-	6.4J	9.1	14.8	10.0U	-	10.0U
Arsenic	ug/L	Y	3	-	9.7	-	-	-	1.5J	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5UJ	0.5U	0.5U	-	0.6J	0.5U	0.5U	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	16600	-	39900	44500	7570	-	23800	55400	57100	2610	-	2720
Iron	ug/L	Y	300	-	11200	-	-	-	6050	-	-	-	-	1590	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	45800	-	46000	-	-	-	57200	-	-	-	-	125000U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	680U	-	-	-	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212
			Sample Date	11/13/2008	05/28/2009	05/29/2009	11/19/2009	11/20/2009	04/28/2010	04/29/2010	09/20/2010	09/21/2010	06/22/2011	06/23/2011	11/14/2011	11/15/2011
			Field Sample ID	M212A2X	M212A3	M212A3X	M212A4	M212A4X	M212A5	M212A5X	M212A6	M212A6X	M212A8	M212A8X	M212A9	M212A9X
			SDG	1120044	1146962	1146962	1172227	1172227	RFS40	RFS40	RFS68	RFS68	RFT36	RFT36	RFT86	RFT86
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	7.61	-	8.51	-	2.05	0	2.78	0	2.39	1.63	2.32	0
DO	mg/L	N	NS	-	0	-	1.01	-	7.35	7.43	0	8.23	14.57	7.71	14.05	7.76
ORP	millivolts	N	NS	-	-120	-	-1	-	-87	-106	-109	-97	-67	-49	-54	-78
pH	pH Units	N	NS	-	5.46	-	6.77	-	6.71	6.68	6.82	6.51	7.06	6.99	7.15	6.86
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	14.5J	-	9.8J	-	11.3J	-	9.8U	-	5.1U	-	5.1U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	34200	-	7650	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212
			Sample Date	03/19/2012	03/20/2012	08/13/2012	08/14/2012	02/26/2013	02/27/2013	05/07/2013	05/07/2013	06/18/2013	06/18/2013	03/31/2014	04/01/2014	06/26/2014
			Field Sample ID	M212B1	M212B1X	M212B2	M212B2X	M212B3	M212B3X	M212B4	M212B4X	M212B5	M212B5X	M212B6	M212B6X	M212B7X
			SDG	RFU25	RFU25	RFV28	RFV28	RFX80	RFX80	RFZ29	RFZ29	CP005	CP005	CS079	CS079	CP389
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.92	0.36	2.17	5.18	7.4	9.08	7.6	7.6	9.43	9.43	7.45	7.91	8.43
DO	mg/L	N	NS	14.1	8.13	13.95	8.48	4.08	1.4	5.62	5.62	-0.17	-0.17	5.13	1.49	3.08
ORP	millivolts	N	NS	-67	-98	-184	-126	-218	-269	-47.4	-47.4	-62	-62	-205	-329	-33.9
pH	pH Units	N	NS	7.42	6.86	9.03	7.02	7.27	7.09	6.97	6.97	6.99	6.99	6.79	7.02	6.69
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	700U	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	301000	-	307000	-	-	-	-	-	253000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	700U	-	-	-	-	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	301000	-	307000	-	-	-	-	-	253000	-
Arsenic	ug/L	N	3	6.6J	-	3.1	-	1.4J	-	3.5	-	3.4	-	1.7J	-	-
Arsenic	ug/L	Y	3	-	-	2.3	-	0.45J	-	1.9J	-	2.2	-	1.2J	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	1770	-	945	-	5250	-	9300	-	879	-	-
Iron	ug/L	Y	300	-	-	594	-	38.9J	-	532	-	1080	-	140J	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	40U	-	-	-	-	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	40400	-	39200	-	61600	-	60200	-	82100	90600
Sulfide	ug/L	N	NS	-	-	-	600U	-	600U	-	-	-	-	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-233	MW-233	MW-233
			Sample Date	07/29/2014	07/29/2014	01/20/2015	01/20/2015	08/06/2015	08/07/2015	11/27/2017	11/27/2017	03/05/2018	03/06/2018	06/01/2006	06/02/2006	12/11/2006
			Field Sample ID	M212B8	M212B8X	M212B9	M212B9X	M212C1	M212C1X	M212C6	M212C6X	M212C7	M212C7X	M233A1	M233A1X	M233A2
			SDG	CP431	CP431	CP648	CP648	CS270	CS270	CQ904	CQ904	CS656	CS656	991967	991967	1017858
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.6	7.6	8.08	8.08	-	7.98	8.07	8.07	-	-	-	-	-
DO	mg/L	N	NS	0.44	0.44	0.97	0.97	-	4.2	9.28	9.28	-	-	-	-	-
ORP	millivolts	N	NS	-83.4	-83.4	227.9	227.9	-	3	-28	-28	-	-	-	-	-
pH	pH Units	N	NS	7.02	7.02	6.64	6.64	-	7.24	8.12	8.12	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	210000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	251000	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	700U	-	-	-	1700U	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	251000	-	-	-	65200	-	-	-
Arsenic	ug/L	N	3	3.3	-	2.6	-	2.8	-	2.4	-	1.5J	-	-	-	-
Arsenic	ug/L	Y	3	2.8	-	2.2	-	2.3	-	2.2	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	59	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	5450	-	3100	-	2160	-	4460	-	3400	-	17000	-	12500J
Iron	ug/L	Y	300	1340	-	2230	-	548	-	3970	-	2440	-	17000	-	3520J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	40U	-	-	-	700	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	78100	-	88800	-	78400	-	31600	-	39600	-	3700J	-
Sulfide	ug/L	N	NS	-	-	-	4800U	-	680U	-	-	-	700U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233
			Sample Date	12/12/2006	05/23/2007	05/24/2007	12/18/2007	12/19/2007	06/23/2008	06/24/2008	11/10/2008	11/11/2008	05/28/2009	05/29/2009	11/19/2009	11/20/2009
			Field Sample ID	M233A2X	M233A3	M233A3X	M233A4	M233A4X	M233A5	M233A5X	M233A6	M233A6X	M233A7	M233A7X	M233A8	M233A8X
			SDG	1017858	1039857	1039857	1070579	1070579	1097656	1097656	1119533	1119533	1146962	1146962	1172227	1172227
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	4.48	-	4.34	-	4.03	-	4.14	-
DO	mg/L	N	NS	-	-	-	-	-	0.18	-	0	-	0	-	0.85	-
ORP	millivolts	N	NS	-	-	-	-	-	-102	-	-55	-	-90	-	-19	-
pH	pH Units	N	NS	-	-	-	-	-	6.75	-	6.42	-	5.30	-	6.19	-
Alkalinity to pH 4.5	ug/L	N	NS	191000	-	158000	-	209000	-	207000	-	226000	-	459000	-	210000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	300	-	350	-	280	-	540	-	730	-	1300	-	820
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	15500	-	22000	-	12400	-	17700	-	12400	-	12600	-
Iron	ug/L	Y	300	-	15300	-	5740	-	13400	-	17400	-	12300	-	10900	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	800U	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	3000U	-	5000U	-	5000U	-	12500U	-	5000U	-	2500U	-	2500U
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	1100J	-	3200J	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233
			Sample Date	05/13/2010	05/14/2010	09/23/2010	09/23/2010	06/21/2011	03/20/2012	03/21/2012	05/24/2012	05/25/2012	07/25/2012	07/26/2012	04/25/2013
			Field Sample ID	M233A9-100513	M233A9X-100514	M233B1	M233B1X	M233B2X	M233B3	M233B3X	M233B4	M233B4X	M233B5	M233B5X	M233B6
			SDG	RFS42	RFS42	RFS68	RFS68	RFT35	RFU27	RFU27	RFU73	RFU74	RFV16	RFV17	RFZ12
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.43	0	-	-	-	34.05	-	1.71	-	1.13	-	2.7
DO	mg/L	N	NS	3.71	3.1	-	-	-	4.84	4.78	3.62	3.6	7.67	7.76	3.04
ORP	millivolts	N	NS	-57	0	-	-	-	-	-	-	-	-83	-	-12
pH	pH Units	N	NS	6.24	0.00	-	-	-	-	-	-	-	6.54	-	6.29
Alkalinity to pH 4.5	ug/L	N	NS	-	203000	-	203000	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	6.9J	-	6.1J	-	14.4J	-	1.7J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	1.3J
Benzene	ug/L	N	1	-	1000	-	280	1400	-	430	1300	860	270	220	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	15800	-	17800	-	-	21000	-	17100	-	25000	-	22700
Iron	ug/L	Y	300	15300	-	13700	-	-	-	-	-	-	-	-	22100
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2500U	-	2500U	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233
			Sample Date	04/25/2013	06/17/2013	06/25/2013	06/25/2013	09/10/2013	11/12/2013	03/14/2014	07/02/2014	07/02/2014	07/02/2014	08/04/2014	08/04/2014	08/08/2014
			Field Sample ID	M233B6X	M233B7	M233B8	M233B8X	M233B9	M233C1	M233C2	D0702148	M233C4	M233C4X	M233C5	M233C5X	M233C6
			SDG	RFZ12	RFB08	CP016	CP016	CS007	CS042	CS073	CP401	CP401	CP401	CP442	CP442	CS139
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.7	2.13	2.59	2.59	3.02	7.51	2.29	2.42	2.42	2.42	2.42	2.42	2.5
DO	mg/L	N	NS	3.04	0.55	4.45	4.45	0.75	0.87	0.74	0.27	0.27	0.27	0.45	0.45	1.64
ORP	millivolts	N	NS	-12	-127	-89	-89	-166	-244	-142	-128.9	-128.9	-128.9	-220.7	-220.7	-353
pH	pH Units	N	NS	6.29	6.51	6.47	6.47	6.49	6.62	6.51	6.70	6.70	6.70	6.55	6.55	7.08
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	3.8	1.6J	-	2.5	6.6	11.2	157	170	-	39.3	-	33.2
Arsenic	ug/L	Y	3	-	-	1.4J	-	-	-	-	119	140	-	32.7	-	-
Benzene	ug/L	N	1	370	530	-	160	460	84	390	-	-	57	-	140J	260
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	42500	23400	-	32700	21600	121000	37400	37300	-	15400	-	2560
Iron	ug/L	Y	300	-	-	23000	-	-	-	-	39800	35700	-	14600	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	2100J	-	-	2000J	-	-	-	-	-	806000	-	2960000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-233	MW-234	MW-234	MW-234
			Sample Date	10/31/2014	01/16/2015	01/16/2015	03/11/2015	06/09/2015	07/06/2015	07/07/2015	09/21/2015	10/16/2017	01/26/2018	06/01/2006	06/02/2006	12/11/2006
			Field Sample ID	M233C7	M233C8	M233C8X	M233C9	M233D1	M233D2	M233D2X	M233D3	M233E6	M233E7	M234A1	M234A1X	M234A2
			SDG	CS180	CP644	CP644	CS208	CS249	CP768	CP770	CS288	CS618	CS638	991967	991967	1017858
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.64	2.36	2.36	1.84	-	-	-	2.75	2.58	-	-	-	-
DO	mg/L	N	NS	1.38	0.44	0.44	4.28	-	-	-	-	0.5	0.16	-	-	-
ORP	millivolts	N	NS	-327	-406.4	-406.4	-252	-	-	-	-	-287	22	-	-	-
pH	pH Units	N	NS	1.38	7.28	7.28	7.11	-	-	-	-	8.07	7.91	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	253000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	172	40.0	-	17.7	19.1	22.3	-	41.4	1.6UJ	23.6	-	-	-
Arsenic	ug/L	Y	3	-	41.4	-	-	-	16.6	-	-	-	-	-	-	-
Benzene	ug/L	N	1	73	-	270	360	420J	-	280	270	360	330J	-	40	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	8960	962	-	39400	365	1660	-	5050J	1950	131J	1930	-	1460J
Iron	ug/L	Y	300	-	553	-	-	-	2170	-	-	-	-	1500	-	1010J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	11700000	-	-	-	543000	-	6690000	-	-	1500U	-
Sulfide	ug/L	N	NS	-	-	5800	-	-	-	-	-	-	-	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234
			Sample Date	12/12/2006	05/23/2007	05/24/2007	12/19/2007	12/20/2007	06/24/2008	06/25/2008	11/10/2008	11/11/2008	05/19/2009	05/19/2009	11/23/2009	11/24/2009
			Field Sample ID	M234A2X	M234A3	M234A3X	M234A4	M234A4X	M234A5	M234A5X	M234A6	M234A6X	M234A7	M234A7X	M234A8	M234A8X
			SDG	1017858	1039857	1039857	1070808	1070808	1097890	1097890	1119533	1119533	1145500	1145500	1172674	1172674
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	4.06	-	3.1	3.1	3.81	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	0	-	0.6	0.6	1.01	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-206	-	-123	-123	-123	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	7.04	-	6.87	6.87	6.85	-
Alkalinity to pH 4.5	ug/L	N	NS	285000	-	230000	-	282000	-	270000	-	288000	-	244000	-	276000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	10.0U	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	120	-	16	-	30	-	16	-	8	-	120	-	12
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	793	-	52.2U	-	1120	-	548	-	577	-	810	-
Iron	ug/L	Y	300	-	548	-	398	-	712	-	461	-	495	-	254	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	800U	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	11100	-	2500U	-	13100	-	11300	-	18200	-	2500U	-	20000
Sulfide	ug/L	N	NS	630J	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234	MW-234R	MW-234R	MW-234R	MW-234R
			Sample Date	05/20/2010	05/21/2010	09/23/2010	09/23/2010	09/23/2010	09/23/2010	06/21/2011	03/21/2012	07/26/2013	07/26/2013	07/03/2014	07/03/2014
			Field Sample ID	M234A9-100520	M234A9X-100521	D0923101	D0923102	M234B1	M234B1X	M234B2X	M234B3X	M234RA1	M234RA1X	M234RA2	M234RA2X
			SDG	RFS43	RFS43	RFS68	RFS68	RFS68	RFS68	RFT35	RFU27	CP054	CP054	CP404	CP404
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.8	0.38	-	-	-	-	-	-	4.74	4.74	6.04	6.04
DO	mg/L	N	NS	3.25	3.3	-	-	-	-	-	4.43	0	0	1.68	1.68
ORP	millivolts	N	NS	-167	0	-	-	-	-	-	-	-99.3	-99.3	-114.8	-114.8
pH	pH Units	N	NS	6.49	0.00	-	-	-	-	-	-	6.85	6.85	7.04	7.04
Alkalinity to pH 4.5	ug/L	N	NS	-	223000	-	259000	-	256000	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	4.4	-	45.7	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	4.5	-	41.3	-
Benzene	ug/L	N	1	-	97	-	59	-	76	83	75	-	36	-	43
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	1230	-	318	-	325	-	-	-	23000	-	26200	-
Iron	ug/L	Y	300	1070	-	119J	-	131J	-	-	-	17000	-	24500	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2500U	-	2500U	-	2500U	-	-	-	111000	-	36200
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-234R	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237
			Sample Date	08/01/2014	08/01/2014	08/29/2014	01/16/2015	01/16/2015	09/18/2015	10/31/2006	12/06/2006	12/07/2006	05/10/2007	05/11/2007	11/29/2007	11/30/2007
			Field Sample ID	M234RA3	M234RA3X	M234RA4X	M234RA5	M234RA5X	M234RA6	M237A1	M237A2	M237A2X	M237A3	M237A3X	M237A4	M237A4X
			SDG	CP441	CP441	CS149	CP644	CP644	CS287	1012219	1017222	1017222	1037974	1037974	1067672	1067672
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.47	5.47	4.01	6.05	6.05	5.19	-	-	-	-	-	-	-
DO	mg/L	N	NS	0.16	0.16	0.27	3.7	3.7	3.46	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-143.2	-143.2	172	-26.8	-26.8	-100	-	-	-	-	-	-	-
pH	pH Units	N	NS	6.62	6.62	6.86	7.24	7.24	7.15	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	2230000	-	2330000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	34.3	-	-	17.7	-	26.7	17.9J	40.4	-	10U	-	10.0U	-
Arsenic	ug/L	Y	3	30.3	-	-	8.6	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	45J	57	-	47	28	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	28200	-	-	29500	-	35400	31100J	25700	-	12900	-	5520	-
Iron	ug/L	Y	300	25200	-	-	26000	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	400U	-	400U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	3600J	-	-	16400	-	-	-	-	-	10000U	-	5000U
Sulfide	ug/L	N	NS	-	-	-	-	600U	-	-	-	-	-	1500J	-	2800

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237
			Sample Date	07/02/2008	07/03/2008	10/13/2008	10/14/2008	06/23/2009	06/24/2009	11/16/2009	11/17/2009	05/10/2010	05/11/2010	10/05/2010	10/06/2010
			Field Sample ID	M237A5	M237A5X	M237A6	M237A6X	M237A7	M237A7X	M237A8	M237A8X	M237A9-100510	M237A9X-100511	M237B1	M237B1X
			SDG	1099204	1099204	1114995	1114995	1150741	1150741	RFS20	RFS20	RFS42	RFS42	RFS69	RFS69
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	6.18	-	5.99	-	5.67	-	1.14	0	2.71	0
DO	mg/L	N	NS	-	-	0	-	0	-	0.71	-	0	10.12	0	9.59
ORP	millivolts	N	NS	-	-	-234	-	-175	-	-145	-	-188	-183	-120	-194
pH	pH Units	N	NS	-	-	7.10	-	7.04	-	6.99	-	6.82	6.75	6.42	6.63
Alkalinity to pH 4.5	ug/L	N	NS	-	2280000	-	2280000	-	2260000	-	2260000	-	2260000	-	2260000
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.2U	-	13.0J	-	7.2U	-	16.4J	-	36.0U	-	49.0U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	11900	-	19300	-	15000	-	19900	-	17100	-	11300	-
Iron	ug/L	Y	300	11700	-	18500	-	13300	-	18200	-	11900	-	11400	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	200U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	5000U	-	5000U	-	10000U	-	5000U	-	5000U	-	10000U
Sulfide	ug/L	N	NS	-	800J	-	3700	-	530U	-	530U	-	3000	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-237	MW-238	MW-238	MW-238
			Sample Date	06/02/2011	06/03/2011	02/13/2012	02/14/2012	03/04/2013	03/05/2013	06/02/2014	06/03/2014	09/29/2015	09/30/2015	12/14/2006	12/15/2006	05/09/2007
			Field Sample ID	M237B2	M237B2X	M237B3	M237B3X	M237B4	M237B4X	M237B5	M237B5X	M237B6	M237B6X	M238A1	M238A1X	M238A2
			SDG	RFT27	RFT27	RFU10	RFU10	RFX90	RFX90	CS108	CS108	CS292	CS292	1018500	1018500	1037739
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.77	0	-0.15	1.18	5.77	8.98	-	8.81	5.68	7.98	-	-	-
DO	mg/L	N	NS	19.99	7.98	18.83	8.9	2.84	0.76	1.81	1.76	1.01	-	-	-	-
ORP	millivolts	N	NS	-163	-177	-72	-112	-228	-286	-277	-320	-155	-	-	-	-
pH	pH Units	N	NS	6.61	6.60	6.95	6.95	6.93	7.00	7.19	7.21	6.95	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	2290000	-	2180000	-	2120000	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	700U	-	700U	-	700U	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	2290000	-	2180000	-	2120000	-	-	-
Arsenic	ug/L	N	3	9.8U	-	5.1U	-	5.3	-	5.9	-	5.0J	-	10.6J	-	10U
Arsenic	ug/L	Y	3	-	-	-	-	4.2	-	5.6	-	5.1J	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5UJ	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	8060	-	11400	-	8230	-	4080	-	4030
Iron	ug/L	Y	300	-	-	-	-	4200	-	10300	-	8050	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	110	-	200	-	40U	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	5000U	-	5000U	-	10000U	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	1300J	-	600U	-	680U	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238
			Sample Date	05/10/2007	05/11/2007	12/10/2007	12/11/2007	07/17/2008	07/18/2008	11/03/2008	11/04/2008	07/20/2009	07/21/2009	11/05/2009	11/06/2009	07/07/2010
			Field Sample ID	M238A2X	M238A2Y	M238A3	M238A3X	M238A4	M238A4X	M238A5	M238A5X	M238A6	M238A6X	M238A7	M238A7X	M238A8
			SDG	1037739	1037974	1069298	1069298	1101417	1101417	1118353	1118353	1154382	1154382	1170013	1170013	RFS54
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	1.59	-	1.05	-	1.02	-	0.87	-	0.87	-	4.68
DO	mg/L	N	NS	-	-	2.88	-	0.92	-	0.47	-	1.94	-	6.32	-	1.36
ORP	millivolts	N	NS	-	-	-66	-	-117	-	-24	-	-126	-	-109	-	-83
pH	pH Units	N	NS	-	-	8.28	-	7.25	-	6.95	-	6.67	-	7.38	-	7.76
Alkalinity to pH 4.5	ug/L	N	NS	-	223000	-	228000	-	214000	-	216000	-	217000	-	215000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	10.0U	-	15.2J	-	10.0U	-	7.2U	-	7.2U	-	9.8U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	587	-	5260	-	1440	-	7200	-	1610	-	4850
Iron	ug/L	Y	300	-	-	52.2U	-	1880	-	52.2U	-	2000	-	349	-	2530
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	150	-	440	-	290	-	250	-	250	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	136000	-	157000	-	149000	-	149000	-	164000	-	159000	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-238	MW-239	MW-239	MW-239	MW-239
			Sample Date	07/08/2010	06/07/2011	06/08/2011	03/06/2012	03/07/2012	04/24/2013	04/25/2013	05/28/2014	05/29/2014	12/14/2006	12/15/2006	05/15/2007	05/16/2007
			Field Sample ID	M238A8X	M238A9	M238A9X	M238B1	M238B1X	M238B2	M238B2X	M238B3	M238B3X	M239A1	M239A1X	M239A2	M239A2X
			SDG	RFS54	RFT30	RFT30	RFU15	RFU15	RFZ13	RFZ13	CS106	CS106	1018500	1018500	1038619	1038619
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.39	3.95	0.9	1.56	0.52	1.04	0.82	0.21	0.24	-	-	-	-
DO	mg/L	N	NS	1.36	0.76	0.71	2.38	1.18	5.34	1.15	5.98	3.38	-	-	-	-
ORP	millivolts	N	NS	38	-111	-62	-244	-18	-155	-244	-86	-251	-	-	-	-
pH	pH Units	N	NS	6.62	6.97	7.21	7.59	6.86	7.45	7.25	7.24	7.19	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	197000	-	199000	-	204000	-	-	-	-	-	-	-	489000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	-	-	-	-	-	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	212000	-	195000	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	700U	-	700U	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	212000	-	195000	-	-	-	-
Arsenic	ug/L	N	3	-	9.8U	-	5.1U	-	2.2	-	4.1	-	12.4J	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	1.3J	-	1.2J	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	3000	-	3030	-	1710	-	4340	-	5880	-	4370	-
Iron	ug/L	Y	300	-	2630	-	2060	-	360	-	1420	-	-	-	3560	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	430	-	40U	-	40U	-	96J	-	410	-	-	-	1800
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	150000	-	174000	-	135000	-	150000	-	138000	-	-	-	242000
Sulfide	ug/L	N	NS	530U	-	530U	-	600U	-	600U	-	600U	-	-	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239
			Sample Date	12/05/2007	12/06/2007	07/28/2008	07/29/2008	10/20/2008	10/21/2008	06/25/2009	06/26/2009	10/26/2009	10/27/2009	06/14/2010	06/15/2010
			Field Sample ID	M239A3	M239A3X	M239A4	M239A4X	M239A5	M239A5X	M239A6	M239A6X	M239A7	M239A7X	M239A9-100614	M239A9X-100615
			SDG	1068622	1068622	1102860	1102860	1116164	1116164	1151128	1151128	1168255	1168255	RFS47	RFS47
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	7.91	-	7.65	-	7.59	-	-	-	4.75	1.79
DO	mg/L	N	NS	-	-	1.39	-	0	-	0	-	-	-	7.86	7.81
ORP	millivolts	N	NS	-	-	91	-	41	-	-41	-	-	-	-95	-2
pH	pH Units	N	NS	-	-	7.43	-	7.40	-	6.75	-	-	-	7.24	7.21
Alkalinity to pH 4.5	ug/L	N	NS	-	607000	-	706000	-	713000	-	744000	-	744000	-	748000
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.0U	-	10.2U	-	10.0U	-	7.2U	-	8.5J	-	9.8U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	52.2U	-	435	-	156J	-	4370	-	5940	-	3120	-
Iron	ug/L	Y	300	52.2U	-	52.2U	-	52.2U	-	4740	-	4120	-	52.2U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	1300	-	2200	-	930	-	2200	-	1700	-	740
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	157000	-	158000	-	154000	-	172000	-	166000	-	155000
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	530U	-	-	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-239	MW-240	MW-240	MW-240
			Sample Date	09/16/2010	09/16/2010	05/18/2011	05/19/2011	02/27/2012	02/28/2012	03/20/2013	03/21/2013	09/09/2014	09/10/2014	11/30/2006	12/01/2006	05/10/2007
			Field Sample ID	M239B1	M239B1X	M239B2	M239B2X	M239B3	M239B3X	M239B4	M239B4X	M239B5	M239B5X	M240A1	M240A1X	M240A2
			SDG	RFS67	RFS67	RFT23	RFT23	RFU13	RFU13	RFY20	RFY20	CS155	CS155	1016343	1016343	1037974
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.63	1.63	7.46	23.29	-0.14	0.25	7.82	7.8	7.96	7.77	-	-	-
DO	mg/L	N	NS	8.38	8.38	9.98	6.69	8.3	8.18	4.24	0.79	2.18	-	-	-	-
ORP	millivolts	N	NS	-138	-138	-37	21	-27	-53	-110	-310	148	-	-	-	-
pH	pH Units	N	NS	6.88	6.88	6.84	6.98	7.53	6.94	7.18	7.17	7.12	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	749000	-	709000	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	762000	-	698000	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	700U	-	700U	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	762000	-	698000	-	-	-
Arsenic	ug/L	N	3	9.8U	-	9.8U	-	5.9J	-	4.3	-	6.3	-	10U	-	11.7J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	3.7	-	4.9	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	4380	-	3940	-	-	-	2990	-	4930	-	4160J	-	7960
Iron	ug/L	Y	300	4010	-	3110	-	-	-	2990	-	4260	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	540	-	-	-	190	-	100	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	165000	-	139000	-	-	-	141000	-	137000	-	-	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	-	-	600U	-	600U	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240
			Sample Date	05/11/2007	12/05/2007	12/06/2007	07/28/2008	07/29/2008	10/29/2008	10/30/2008	05/26/2009	05/27/2009	10/26/2009	10/27/2009	06/22/2011	06/23/2011
			Field Sample ID	M240A2X	M240A3	M240A3X	M240A4	M240A4X	M240A5	M240A5X	M240A6	M240A6X	M240A7	M240A7X	M240A8	M240A8X
			SDG	1037974	1068622	1068622	1102860	1102860	1117661	1117661	1146548	1146548	1168255	1168255	RFT36	RFT36
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	3.26	-	3.28	-	-	-	3.52	-	4.28	3.94
DO	mg/L	N	NS	-	-	-	0.64	-	4.93	-	4.39	-	5.82	-	3.33	3.28
ORP	millivolts	N	NS	-	-	-	-133	-	31	-	71	-	45	-	44	-7
pH	pH Units	N	NS	-	-	-	6.69	-	7.69	-	6.46	-	8.39	-	7.09	7.41
Alkalinity to pH 4.5	ug/L	N	NS	283000	-	301000	-	282000	-	109000	-	123000	-	97100	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	-	10.2U	-	10.0U	-	7.2U	-	7.2U	-	5.1U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	180	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	642	-	2480	-	1610	-	2180	-	2370	-	-	-
Iron	ug/L	Y	300	-	642	-	1530	-	86.2J	-	1150	-	378	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	2200	-	1400	-	2100	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	177000	-	175000	-	174000	-	44500	-	67600	-	44100	-	-
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240
			Sample Date	03/14/2012	03/15/2012	02/25/2013	02/26/2013	04/30/2013	04/30/2013	04/30/2013	06/18/2013	06/19/2013	03/13/2014	03/13/2014	06/30/2014	07/30/2014
			Field Sample ID	M240A9	M240A9X	M240B1	M240B1X	M240B2	M240B2	M240B2X	M240B3	M240B3X	M240B4	M240B4X	M240B5X	M240B6
			SDG	RFU22	RFU22	RFX79	RFX79	RFZ23	RFZ24	RFZ24	CP005	CP008	CP277	CP277	CP392	CP432
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.18	7.41	3.59	3.58	3.6	3.6	3.6	3.14	3.26	3.53	3.53	3.51	3.57
DO	mg/L	N	NS	3.45	3.56	6.64	4.65	10.37	10.37	10.37	0	0	1	1	0.65	0.45
ORP	millivolts	N	NS	19	19	-165	77	106.7	106.7	106.7	93	94	85.7	85.7	67.5	3.4
pH	pH Units	N	NS	7.45	6.73	7.35	6.89	5.95	5.95	5.95	6.42	6.46	6.25	6.25	6.80	6.89
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	130000	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	700U	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	130000	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	5.1U	-	1.1J	-	-	2.5	-	1.0J	-	1.6J	-	-	8.4
Arsenic	ug/L	Y	3	-	-	0.77J	-	0.44J	-	-	0.42U	-	0.78U	-	-	7.5
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	-	0.5U	-	0.5U	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	1260	-	-	4850	-	1390	-	2030	-	-	2770
Iron	ug/L	Y	300	-	-	868	-	219	-	-	245	-	72.7J	-	-	566
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	1000	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	72300	-	-	56000	-	97400	-	62200	50700	-
Sulfide	ug/L	N	NS	-	-	-	600U	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-240	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241
			Sample Date	07/30/2014	09/10/2014	09/11/2014	01/19/2015	01/19/2015	11/29/2017	11/29/2017	12/06/2006	12/07/2006	05/15/2007	05/16/2007	12/05/2007	12/06/2007
			Field Sample ID	M240B6X	M240B7	M240B7X	M240B8	M240B8X	M240C3	M240C3X	M241A1	M241A1X	M241A2	M241A2X	M241A3	M241A3X
			SDG	CP432	CS154	CS154	CP647	CP647	CQ908	CQ908	1017222	1017222	1038619	1038619	1068622	1068622
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.57	3.59	3.55	3.15	3.15	3.8	3.8	-	-	-	-	-	-
DO	mg/L	N	NS	0.45	2.28	1.57	0.91	0.91	4.02	4.02	-	-	-	-	-	-
ORP	millivolts	N	NS	3.4	145	-360	16.9	16.9	-98.7	-98.7	-	-	-	-	-	-
pH	pH Units	N	NS	6.89	7.33	7.08	7.37	7.37	7.03	7.03	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	336000	-	379000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	107000	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	107000	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	11.8	-	13.0	-	11	-	10U	-	-	-	10.0U	-
Arsenic	ug/L	Y	3	-	11.1	-	12.3	-	8.6J	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5UJ	-	0.5U	-	0.5U	-	0.5UJ	-	0.5U	-	0.5U	-	1J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	3990	-	9010	-	14100	-	31700	-	39200	-	29900	-
Iron	ug/L	Y	300	-	3250	-	7480	-	5940	-	-	-	40100	-	29000	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	56J	-	-	-	-	-	-	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	167000	-	113000	-	59000	-	47400	-	-	-	10000U	-	5000U
Sulfide	ug/L	N	NS	-	-	600U	-	600U	-	-	-	-	-	530U	-	1500J

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241
			Sample Date	08/14/2008	08/15/2008	10/29/2008	10/30/2008	06/10/2009	06/11/2009	11/18/2009	11/19/2009	04/28/2010	04/29/2010	09/20/2010	09/21/2010	08/03/2011
			Field Sample ID	M241A4	M241A4X	M241A5	M241A5X	M241A6	M241A6X	M241A7	M241A7X	M241A8	M241A8X	M241A9	M241A9X	M241B1
			SDG	1105739	1105739	1117661	1117661	1148815	1148815	1171988	1171988	RFS40	RFS40	RFS68	RFS68	RFT50
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.3	-	7.29	-	7.01	-	7.29	-	1.7	0.04	1.36	0	1.44
DO	mg/L	N	NS	0	-	0	-	0.72	-	0.84	-	6.96	6.99	7.29	7.31	7.29
ORP	millivolts	N	NS	-143	-	-118	-	-106	-	-85	-	-127	-131	-127	0	-69
pH	pH Units	N	NS	6.72	-	6.79	-	6.77	-	6.26	-	6.56	6.35	6.98	0.00	6.87
Alkalinity to pH 4.5	ug/L	N	NS	-	391000	-	384000	-	397000	-	410000	-	387000	-	426000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.2U	-	10.0U	-	7.2U	-	7.2U	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	29700	-	27100	-	25400	-	24900	-	27400	-	23400	-	23300
Iron	ug/L	Y	300	29800	-	27000	-	25100	-	24800	-	25800	-	23000	-	22600
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	10000U	-	5000U	-	15000	-	10000U	-	5000U	-	5000U	-
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	530U	-	600J	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241
			Sample Date	08/04/2011	11/21/2011	11/22/2011	03/26/2012	03/27/2012	08/08/2012	08/09/2012	04/03/2013	04/04/2013	09/25/2013	09/26/2013	06/18/2014	06/19/2014
			Field Sample ID	M241B1X	M241B2	M241B2X	M241B3	M241B3X	M241B4	M241B4X	M241B5	M241B5X	M241B6	M241B6X	M241B7	M241B7X
			SDG	RFT50	RFT88	RFT88	RFU30	RFU30	RFV27	RFV27	RFY53	RFY53	CS016	CS016	CS114	CS114
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.04	0.52	0.46	2.82	1.47	9.02	-	-	-	7.34	7.33	7.12	-
DO	mg/L	N	NS	7.29	7.3	7.3	7.4	7.42	7.4	-	-	-	0.72	0.36	1.87	-
ORP	millivolts	N	NS	-104	-79	-99	-64	-68	-182	-	-	-	-356	-234	-77	-
pH	pH Units	N	NS	6.94	6.77	6.70	6.97	6.60	6.90	-	-	-	6.79	6.84	6.68	-
Alkalinity to pH 4.5	ug/L	N	NS	418000	-	362000	-	367000	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	700U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	381000	-	393000	-	387000	-	349000
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	15.1	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	0.91J	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	25500	-	23200	-	20200	-	28600	-	21400	-	53000	-
Iron	ug/L	Y	300	-	25700	-	23000	-	21600	-	27200	-	21300	-	23800	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	10000U	-	5000U	-	10000U	-	10000U	-	5000U	-	5000U	-	12500U
Sulfide	ug/L	N	NS	530U	-	530U	-	600U	-	600U	-	600U	-	600U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-241	MW-241	MW-241	MW-241	MW-241	MW-241	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242
			Sample Date	11/11/2014	11/12/2014	06/29/2015	06/30/2015	03/01/2018	03/01/2018	12/04/2006	12/05/2006	05/14/2007	05/15/2007	12/19/2007	12/20/2007	08/12/2008
			Field Sample ID	M241B8	M241B8X	M241B9	M241B9X	M241C5	M241C5X	M242A1	M242A1X	M242A2	M242A2X	M242A3	M242A3X	M242A4
			SDG	CS184	CS184	CS256	CS256	CS655	CS655	1016740	1016740	1038388	1038388	1070809	1070809	1105279
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.39	7.36	-	7.23	-	-	-	-	-	-	-	-	2.81
DO	mg/L	N	NS	2.72	-	-	11.03	-	-	-	-	-	-	-	-	0.64
ORP	millivolts	N	NS	-150	-	-	-96	-	-	-	-	-	-	-	-	-56
pH	pH Units	N	NS	6.65	-	-	6.54	-	-	-	-	-	-	-	-	6.30
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	173000	-	163000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	1700U	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	386000	-	408000	-	365000	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	10U	-	10U	-	10.0U	-	10.2U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	21900	-	25100	-	19200	-	4270	-	8490	-	15300	-	1700
Iron	ug/L	Y	300	21200	-	23700	-	18900	-	-	-	2040	-	1670	-	1350
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	-	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	10000U	-	10000U	-	2000U	-	-	-	85300	-	95200	-
Sulfide	ug/L	N	NS	-	600U	-	680U	-	700U	-	-	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242	MW-242
			Sample Date	08/13/2008	11/12/2008	11/13/2008	06/30/2009	07/01/2009	11/11/2009	11/12/2009	06/07/2010	06/08/2010	06/15/2011	06/16/2011	03/13/2012
			Field Sample ID	M242A4X	M242A5	M242A5X	M242A6	M242A6X	M242A7	M242A7X	M242A8-100607	M242A8X-100608	M242A9	M242A9X	M242B1
			SDG	1105279	1120044	1120044	1151840	1151840	1170880	1170880	RFS46	RFS46	RFT33	RFT33	RFU20
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	2.79	-	2.79	-	2.82	-	1.09	0.08	4.04	-	1.88
DO	mg/L	N	NS	-	0	-	0	-	1.2	-	3.42	3.96	2.82	-	3.07
ORP	millivolts	N	NS	-	89	-	-17	-	73	-	-40	-111	-6	-	-13
pH	pH Units	N	NS	-	6.34	-	5.89	-	5.86	-	6.58	6.79	7.31	-	7.11
Alkalinity to pH 4.5	ug/L	N	NS	175000	-	161000	-	170000	-	156000	-	164000	-	162000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	675	-	1830	-	868	-	8120	-	3030	-	20400
Iron	ug/L	Y	300	-	251	-	1520	-	179J	-	1120	-	1600	-	1360
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	800U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	106000	-	136000	-	98200	-	105000	-	94000	-	84200	-
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-242	MW-242	MW-242	MW-242	MW-242	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243
			Sample Date	03/14/2012	09/25/2013	09/26/2013	08/28/2014	08/29/2014	12/04/2006	12/05/2006	05/10/2007	05/11/2007	12/03/2007	12/04/2007	07/22/2008	07/23/2008
			Field Sample ID	M242B1X	M242B2	M242B2X	M242B3	M242B3X	M243A1	M243A1X	M243A2	M243A2X	M243A3	M243A3X	M243A4	M243A4X
			SDG	RFU20	CS016	CS016	CS149	CS149	1016740	1016740	1037974	1037974	1068129	1068129	1102068	1102068
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.59	2.54	2.59	2.58	2.77	-	-	-	-	3.35	-	3.12	-
DO	mg/L	N	NS	3.11	0.9	0.92	4.16	1.97	-	-	-	-	0.86	-	0.18	-
ORP	millivolts	N	NS	-45	-429	-262	201	208	-	-	-	-	-11	-	-152	-
pH	pH Units	N	NS	6.41	6.60	6.50	6.88	6.59	-	-	-	-	6.50	-	6.91	-
Alkalinity to pH 4.5	ug/L	N	NS	159000	-	-	-	-	-	-	-	748000	-	192000	-	470000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	-	-	-	-	-	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	700U	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	141000	-	153000	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	1.2J	-	20.1	-	27.8	-	10.0U	-	14.4J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	4000	-	2300	-	720	-	1400
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	1460	-	1460	-	58100	-	59300	-	2850	-	21100	-
Iron	ug/L	Y	300	-	813	-	1230	-	-	-	-	-	654	-	10600	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	-	-	400U	-	40U	-	400U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	74100	-	127000	-	97600	-	-	-	10000U	-	6700J	-	12500U
Sulfide	ug/L	N	NS	600U	-	600U	-	600U	-	-	-	530U	-	1900J	-	1100U

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243
			Sample Date	10/20/2008	10/21/2008	06/15/2009	06/16/2009	11/04/2009	11/05/2009	06/17/2010	06/18/2010	10/07/2010	10/08/2010	05/23/2011	05/24/2011
			Field Sample ID	M243A5	M243A5X	M243A6	M243A6X	M243A7	M243A7X	M243A8-100617	M243A8X-100618	M243A9	M243A9X	M243B1	M243B1X
			SDG	1116164	1116164	1149447	1149447	1169793	1169793	RFS47	RFS47	RFS72	RFS72	RFT24	RFT24
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.94	-	2.42	-	3.74	-	3.75	0	0.67	0	7.6	-
DO	mg/L	N	NS	0	-	0	-	1.33	-	0	5.31	0	5.78	4.02	4.95
ORP	millivolts	N	NS	-113	-	-84	-	-78	-	-98	0	0	0	-79	-
pH	pH Units	N	NS	6.82	-	6.47	-	6.53	-	6.69	0.00	0.00	0.00	6.67	-
Alkalinity to pH 4.5	ug/L	N	NS	-	603000	-	574000	-	636000	-	812000	-	927000	-	709000
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	17.6J	-	9.2J	-	19.4J	-	23.9	-	19.2J	-	14.1J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	2600	-	1300	-	1800	-	3400	-	2900	-	2600
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	34200	-	26100	-	51900	-	52600	-	52200	-	60400	-
Iron	ug/L	Y	300	35200	-	15600	-	48100	-	49900	-	51500	-	59200	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	400U	-	400U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	25000U	-	10000U	-	25000U	-	12500U	-	10000U	-	12500U
Sulfide	ug/L	N	NS	-	4200U	-	530U	-	4200U	-	530U	-	670J	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243	MW-243R	MW-243R	MW-244	MW-244	MW-244	MW-244	MW-244
			Sample Date	02/28/2012	02/29/2012	03/27/2013	03/28/2013	08/26/2014	08/27/2014	02/01/2018	02/02/2018	12/04/2006	12/05/2006	05/10/2007	05/11/2007	12/03/2007
			Field Sample ID	M243B2	M243B2X	M243B3	M243B3X	M243B4	M243B4X	M243RC2	M243RC2X	M244A1	M244A1X	M244A2	M244A2X	M244A3
			SDG	RFU14	RFU14	RFY40	RFY40	CS147	CS147	CS640	CS640	1016740	1016740	1037974	1037974	1068129
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-0.05	-	8.21	4.65	7.22	3.88	-	-	-	-	-	-	3.28
DO	mg/L	N	NS	8.06	4.32	1.77	-	0.72	-	-	-	-	-	-	-	0.25
ORP	millivolts	N	NS	-	-	-228	-	180	-	-	-	-	-	-	-	-68
pH	pH Units	N	NS	-	-	6.73	-	6.61	-	-	-	-	-	-	-	6.54
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	189000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	620000	-	630000	-	469000	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	700U	-	700U	-	1700U	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	620000	-	630000	-	469000	-	-	-	-	-
Arsenic	ug/L	N	3	14.9J	-	6.9	-	11.0	-	1.6J	-	10U	-	10U	-	10.0U
Arsenic	ug/L	Y	3	-	-	6.0	-	10.4	-	2.0	-	-	-	-	-	-
Benzene	ug/L	N	1	-	1000	-	690	-	370	-	8	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	37700	-	37200	-	2100	-	5730	-	19200	-	9620
Iron	ug/L	Y	300	-	-	35500	-	40200	-	2840	-	-	-	-	-	4670
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	40U	-	40U	-	-	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	5000U	-	10000U	-	306000	-	-	-	74900	-
Sulfide	ug/L	N	NS	-	-	-	600U	-	600U	-	700U	-	-	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244
			Sample Date	12/04/2007	07/22/2008	07/23/2008	10/20/2008	10/21/2008	06/15/2009	06/16/2009	11/04/2009	11/05/2009	06/17/2010	06/18/2010	10/07/2010
			Field Sample ID	M244A3X	M244A4	M244A4X	M244A5	M244A5X	M244A6	M244A6X	M244A7	M244A7X	M244A8-100617	M244A8X-100618	M244A9
			SDG	1068129	1102068	1102068	1116164	1116164	1149447	1149447	1169793	1169793	RFS47	RFS47	RFS72
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	3.95	-	2.91	-	2.76	-	3.01	-	5.67	1.4	0.29
DO	mg/L	N	NS	-	1.86	-	0	-	0	-	1.33	-	2.55	2.88	3.78
ORP	millivolts	N	NS	-	17	-	1	-	146	-	-52	-	-100	31	21
pH	pH Units	N	NS	-	6.91	-	7.09	-	6.47	-	6.76	-	7.28	6.89	7.32
Alkalinity to pH 4.5	ug/L	N	NS	201000	-	187000	-	213000	-	240000	-	206000	-	199000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.2U	-	10.0U	-	-	-	7.2U	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	2J	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	4300	-	1410	-	20900	-	8850	-	13800	-	7670
Iron	ug/L	Y	300	-	52.2U	-	113J	-	52.2U	-	6150	-	5160	-	6320
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	220	-	370	-	130	-	210	-	220	-	230	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	72900	-	70600	-	68300	-	65200	-	63700	-	64900	-
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-244	MW-244	MW-244	MW-244	MW-244	MW-244	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258
			Sample Date	10/08/2010	05/23/2011	05/24/2011	02/29/2012	03/11/2013	09/10/2014	02/28/2007	03/01/2007	05/21/2007	05/22/2007	12/04/2007	12/05/2007	06/24/2008
			Field Sample ID	M244A9X	M244B1	M244B1X	M244B2X	M244B3X	M244B4X	M258A1	M258A1X	M258A2	M258A2X	M258A3	M258A3X	M258A4
			SDG	RFS72	RFT24	RFT24	RFU14	RFX98	CS155	1027540	1027540	1039429	1039429	1068390	1068390	1097890
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.66	7.34	7.05	-0.01	2.86	2.76	-	-	-	-	-	-	-
DO	mg/L	N	NS	2.45	2.26	2.47	3.29	6.77	1.02	-	-	-	-	-	-	-
ORP	millivolts	N	NS	104	-70	143	11	-180	-373	-	-	-	-	-	-	-
pH	pH Units	N	NS	6.72	7.32	6.98	7.30	7.01	6.84	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	176000	-	146000	-	-	-	-	636000	-	558000	-	585000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	-	-	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	21.3
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	0.5U	0.5U	-	590	-	490	-	290	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	45900	-	-	-	-	13300	-	12500	-	8020	-	8500
Iron	ug/L	Y	300	-	5200	-	-	-	-	6380	-	6820	-	8860	-	6780
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	170	-	280	-	-	-	-	40U	-	400U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	42300	-	41800	-	-	-	-	25000U	-	2500U	-	2500U	-
Sulfide	ug/L	N	NS	530U	-	530U	-	-	-	-	1100U	-	600J	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258
			Sample Date	06/25/2008	10/23/2008	10/24/2008	07/13/2009	07/14/2009	11/09/2009	11/10/2009	06/01/2010	06/02/2010	09/13/2010	09/14/2010	06/13/2011
			Field Sample ID	M258A4X	M258A5	M258A5X	M258A6	M258A6X	M258A7	M258A7X	M258A8-100601	M258A8X-100602	M258A9	M258A9X	D0613111
			SDG	1097890	1116797	1116797	1153395	1153395	1170404	1170404	RFS45	RFS45	RFS67	RFS67	RFT32
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.76	5.27	-	-	-	4.7	-	1.49	0	1.91	0	1.13
DO	mg/L	N	NS	0.06	0	-	-	-	1	-	5.78	5.34	6.25	5.09	5.82
ORP	millivolts	N	NS	-175	-159	-	-	-	-138	-	-144	-206	-158	-195	-131
pH	pH Units	N	NS	7.36	7.03	-	-	-	6.94	-	6.91	6.98	7.79	6.97	7.17
Alkalinity to pH 4.5	ug/L	N	NS	591000	-	592000	-	568000	-	584000	-	552000	-	592000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	33.2	-	24.6	-	7.2U	-	20.6	-	33.8	-	22.9
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	430	-	270	-	410	-	280	-	370	-	310	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	8310	-	11800	-	9060	-	8880	-	8680	-	9310
Iron	ug/L	Y	300	-	7480	-	7650	-	7440	-	7180	-	7850	-	8750
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	400U	-	40U	-	400U	-	200U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	25000U	-	10000U	-	10000U	-	12500U	-	10000U	-	12500U	-
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258
			Sample Date	06/13/2011	06/14/2011	06/14/2011	11/16/2011	11/17/2011	04/25/2012	04/26/2012	08/15/2012	08/16/2012	04/18/2013	04/19/2013	08/19/2013	09/23/2013
			Field Sample ID	M258B1	D0614111	M258B1X	M258B2	M258B2X	M258B3	M258B3X	M258B4	M258B4X	M258B5	M258B5X	M258B6	M258B7
			SDG	RFT32	RFT32	RFT32	RFT87	RFT87	RFU49	RFU49	RFV29	RFV29	RFY97	RFY97	CP078	CS014
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.13	0.8	0.8	1.79	8.18	4.71	2.29	4.9	4.34	4.52	4.19	4.28	4.98
DO	mg/L	N	NS	5.82	4.67	4.67	6.02	4.51	5.86	4.62	5.76	4.75	3.47	0.68	1.06	0.94
ORP	millivolts	N	NS	-131	-166	-166	-130	-136	-113	-134	-206	-202	-197	-267	-137.1	-284
pH	pH Units	N	NS	7.17	7.24	7.24	7.03	7.08	7.40	7.30	7.31	7.20	7.36	7.25	6.96	7.16
Alkalinity to pH 4.5	ug/L	N	NS	-	568000	575000	-	572000	-	553000	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	460U	-	460U	-	460U	-	700U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	547000	-	530000	528000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	700U	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	547000	-	530000	528000	-
Arsenic	ug/L	N	3	22.9	-	-	24.8	-	17.8J	-	31.7	-	22.3	-	36.6	29.4
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	34.4	-	21.9	-	30.3	28.1
Benzene	ug/L	N	1	-	370	350	-	300	-	350	-	280	-	380	300	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	9310	-	-	8220	-	8220	-	7920	-	8500	-	31400	7550
Iron	ug/L	Y	300	9050	-	-	8050	-	7320	-	7500	-	7920	-	-	6000
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	16000	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	200U	80U	-	40U	-	410J	-	40U	-	40U	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	25000U	25000U	-	2500U	-	2500U	-	10000U	-	5000U	1500U	-
Sulfide	ug/L	N	NS	-	530U	530U	-	530U	-	600U	-	600U	-	600U	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-258	MW-259	MW-259	MW-259	MW-259
			Sample Date	09/24/2013	03/26/2014	03/27/2014	09/12/2014	09/12/2014	12/05/2014	12/05/2014	01/13/2015	01/14/2015	02/28/2007	03/01/2007	05/21/2007	05/22/2007
			Field Sample ID	M258B7X	M258B8	M258B8X	M258B9	M258B9X	M258C1	M258C1X	M258C2	M258C2X	M259A1	M259A1X	M259A2	M259A2X
			SDG	CS014	CS077	CS077	CP506	CP506	CP617	CP617	CS194	CS194	1027540	1027540	1039429	1039429
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.97	4.68	4.56	5.76	5.76	4.84	4.84	5.24	3.41	-	-	-	-
DO	mg/L	N	NS	0.2	7.51	0.97	6.59	6.59	3.18	3.18	1.41	2.74	-	-	-	-
ORP	millivolts	N	NS	-226	-215	-443	-	-	-119.6	-119.6	-146	-170	-	-	-	-
pH	pH Units	N	NS	7.21	6.97	7.23	7.20	7.20	7.04	7.04	7.26	6.91	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	288000	-	296000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	538000	-	493000	-	-	-	-	-	254000	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	-	-	-	-	700U	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	538000	-	493000	-	-	-	-	-	254000	-	-	-	-
Arsenic	ug/L	N	3	-	14.8	-	33.1	-	14.5	-	0.82U	-	-	-	-	-
Arsenic	ug/L	Y	3	-	15.0	-	34.6	-	13.8	-	0.82U	-	-	-	-	-
Benzene	ug/L	N	1	290	-	450	-	270	-	370	-	300	-	190	-	120
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	15600	-	8500	-	42200	-	5070	-	6170	-	9480	-
Iron	ug/L	Y	300	-	14200	-	7220	-	41300	-	2180	-	5750	-	8820	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	-	-	-	-	40U	-	40U	-	400U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	2900J	-	15000J	-	2500J	-	126000	-	205000	-	2500U	-	14200J
Sulfide	ug/L	N	NS	600U	-	600U	-	1300J	-	600U	-	600U	-	530U	-	800J

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259
			Sample Date	12/04/2007	12/05/2007	06/25/2008	06/26/2008	10/23/2008	10/24/2008	07/13/2009	07/14/2009	11/09/2009	11/10/2009	06/01/2010	06/02/2010
			Field Sample ID	M259A3	M259A3X	M259A4	M259A4X	M259A5	M259A5X	M259A6	M259A6X	M259A7	M259A7X	M259A8-100601	M259A8X-100602
			SDG	1068390	1068390	1098093	1098093	1116797	1116797	1153395	1153395	1170404	1170404	RFS45	RFS45
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.98	-	-	-	4.85	-	-	-	4.59	-	0.76	0
DO	mg/L	N	NS	0	-	-	-	0	-	-	-	0.68	-	4.18	4.3
ORP	millivolts	N	NS	-172	-	-	-	-151	-	-	-	-154	-	-180	-185
pH	pH Units	N	NS	7.55	-	-	-	7.33	-	-	-	7.07	-	7.18	6.82
Alkalinity to pH 4.5	ug/L	N	NS	-	287000	-	280000	-	284000	-	272000	-	263000	-	256000
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	120	-	150	-	300	-	100	-	100	-	130
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	5140	-	5410	-	3690	-	5750	-	5470	-	5940	-
Iron	ug/L	Y	300	5200	-	4540	-	2570	-	5000	-	4370	-	4740	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2500U	-	2500U	-	10000U	-	10000U	-	5000U	-	10000U
Sulfide	ug/L	N	NS	-	1100J	-	530U	-	530U	-	530U	-	530U	-	600J

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259
			Sample Date	09/13/2010	09/14/2010	06/13/2011	06/14/2011	11/16/2011	11/17/2011	04/25/2012	04/26/2012	08/08/2012	08/09/2012	04/18/2013	04/19/2013	08/19/2013
			Field Sample ID	M259A9	M259A9X	M259B1	M259B1X	M259B2	M259B2X	M259B3	M259B3X	M259B4	M259B4X	M259B5	M259B5X	M259B6
			SDG	RFS67	RFS67	RFT32	RFT32	RFT87	RFT87	RFU49	RFU49	RFV27	RFV27	RFY97	RFY97	CP078
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.77	0	0.75	1.8	2.66	0.79	2.52	1.1	1.94	4.81	3.99	3.73	4.13
DO	mg/L	N	NS	5.22	4.91	4.3	4.08	4.7	4.05	4.53	4.14	4.56	4.47	3.18	1.02	1.11
ORP	millivolts	N	NS	-173	-187	-133	-140	-128	-150	-124	-116	-170	-154	-211	-255	-125.8
pH	pH Units	N	NS	7.87	7.07	7.15	7.34	7.32	7.30	7.60	7.57	13.75	7.65	7.63	7.52	7.43
Alkalinity to pH 4.5	ug/L	N	NS	-	243000	-	264000	-	270000	-	257000	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	700U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	277000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	261000	-	258000	277000
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	8.9
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	8.3
Benzene	ug/L	N	1	-	150	-	140	-	150	-	160	-	180	-	210	260
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	3660	-	7010	-	5200	-	5660	-	2970	-	3670	-	5030
Iron	ug/L	Y	300	3410	-	5990	-	5020	-	5350	-	2990	-	3660	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	7500
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	5000U	-	5000U	-	2500U	-	2500U	-	2500U	-	2500U	1500U
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	600U	-	600U	-	600U	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-259	MW-260
			Sample Date	09/23/2013	09/24/2013	03/26/2014	03/27/2014	08/18/2014	08/18/2014	12/05/2014	12/05/2014	01/13/2015	01/14/2015	09/15/2015	09/15/2015	03/13/2007
			Field Sample ID	M259B7	M259B7X	M259B8	M259B8X	M259B9	M259B9X	M259C1	M259C1X	M259C2	M259C2X	M259C3	M259C3X	M260A1
			SDG	CS014	CS014	CS077	CS077	CP473	CP473	CP617	CP617	CS194	CS194	CP839	CP839	1029139
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.6	4.61	3.91	4.21	4.92	4.92	4.12	4.12	4.31	3.92	6.2	6.2	-
DO	mg/L	N	NS	1.31	0.32	4.28	0.99	0.22	0.22	0.28	0.28	1.11	3.32	0.35	0.35	-
ORP	millivolts	N	NS	-257	-234	-298	-493	-163.2	-163.2	-140.7	-140.7	-174	-193	-141.5	-141.5	-
pH	pH Units	N	NS	7.61	7.36	7.72	7.42	6.99	6.99	7.37	7.37	7.35	7.22	6.14	6.14	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	-	-	-	-	700U	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	239000	-	235000	-	-	-	-	-	238000	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	8.2	-	6.5	-	-	-	8.3	-	-
Arsenic	ug/L	Y	3	-	-	-	-	7.6	-	7.0	-	-	-	8.5	-	-
Benzene	ug/L	N	1	-	160	-	160	-	170	-	210	-	380	-	260	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	3400	-	10600	-	4900	-	9520	-	8970	-	8670	-	26600
Iron	ug/L	Y	300	2770	-	9720	-	3790	-	9280	-	8640	-	7470	-	25500
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	-	-	-	-	40U	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2500U	-	6500	-	1500U	-	37200	-	2500U	-	1500U	-
Sulfide	ug/L	N	NS	-	720J	-	600U	-	850J	-	600U	-	600U	-	800J	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260
			Sample Date	03/13/2007	05/09/2007	05/10/2007	07/17/2008	07/18/2008	11/03/2008	11/04/2008	03/12/2009	05/13/2009	11/05/2009	11/06/2009	06/20/2011	06/21/2011
			Field Sample ID	M260A1X	M260A2	M260A2X	M260A3	M260A3X	M260A4	M260A4X	M260A5	M260A5X	M260A6	M260A6X	M260A7	M260A7X
			SDG	1029139	1037739	1037739	1101417	1101417	1118353	1118353	1144692	1144692	1170013	1170013	RFT35	RFT35
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	3.27	-	3.17	-	3.09	-	-	-	2.98	-	8.9	0.74
DO	mg/L	N	NS	-	0	-	0.05	-	0	-	-	-	0.48	-	4.81	2.77
ORP	millivolts	N	NS	-	-318	-	-320	-	-305	-	-	-	-299	-	-174	-242
pH	pH Units	N	NS	-	6.70	-	6.80	-	6.18	-	-	-	6.45	-	7.33	7.86
Alkalinity to pH 4.5	ug/L	N	NS	1470000	-	1700000	-	955000	-	1120000	-	808000	-	1030000	-	950000
Alkalinity to pH 8.3	ug/L	N	NS	26600	-	8700	-	47600	-	148000	-	197000	-	87200	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	18.6J	-	19.4J	-	10.0U	-	12.0J	-	10.8J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	36000	-	24000	-	7800	-	13000	-	13000	-	19000	-	18000
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	16300	-	8750	-	2150	-	1480	-	4510	-	714	-
Iron	ug/L	Y	300	-	14700	-	129J	-	1800	-	114J	-	313	-	579	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	20000U	-	4000U	-	40U	-	400U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	33800J	-	61700	-	98200	-	97600	-	168000	-	139000	-	75200
Sulfide	ug/L	N	NS	39400J	-	32200J	-	11200	-	1700J	-	530U	-	4200U	-	7300J

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260	MW-260
			Sample Date	11/14/2011	11/15/2011	03/06/2012	03/07/2012	08/20/2012	08/20/2012	08/21/2012	08/21/2012	03/26/2013	04/10/2013	09/26/2013	09/27/2013	05/27/2014
			Field Sample ID	M260A8	M260A8X	M260A9	M260A9X	D0820121	M260B1	D0821121	M260B1X	M260B2X	M260B3	M260B4	M260B4X	M260B5
			SDG	RFT86	RFT86	RFU15	RFU15	RFV30	RFV30	RFV30	RFV30	RFY32	RFY73	CS017	CS017	CS105
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.13	-	-0.16	-	7.2	7.2	5.17	5.17	3.03	2.95	3.87	3.04	4.06
DO	mg/L	N	NS	3.09	-	2.98	2.71	3.76	3.76	2.92	2.92	-	0.45	0.36	-	1.26
ORP	millivolts	N	NS	-214	-	-251	-	-	-	-291	-291	-	-302	-257	-	-274
pH	pH Units	N	NS	6.77	-	8.43	-	-	-	7.60	7.60	-	6.73	6.94	-	6.84
Alkalinity to pH 4.5	ug/L	N	NS	-	870000	-	1070000	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	42500	-	-	3500U	3500U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	1110000	1090000	1190000	-	-	934000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	700U	-	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	1110000	1090000	1190000	-	-	934000	-
Arsenic	ug/L	N	3	5.1U	-	58.4	-	5.3	5.5	-	-	-	6.1	14.2	-	11.8
Arsenic	ug/L	Y	3	-	-	-	-	5.8	5.4	-	-	-	4.6	11.9	-	10.2
Benzene	ug/L	N	1	-	15000	-	19000	-	-	13000	14000	22000	-	-	14000	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	2710	-	4000	-	1290	1670	-	-	-	3110	2190	-	2750
Iron	ug/L	Y	300	2340	-	2960	-	320	386	-	-	-	97.6J	1790	-	2120
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	1000U	-	4000U	-	-	5000U	5000U	1000U	-	-	1000U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	99300	-	80400	-	-	93500	97800	120000	-	-	94800	-
Sulfide	ug/L	N	NS	-	10500J	-	12000U	-	-	12000	11200	14500J	-	-	8800	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-260	MW-260	MW-260	MW-261	MW-261	MW-261	MW-261	MW-261	MW-261	MW-262	MW-262	MW-262	MW-262
			Sample Date	05/28/2014	07/01/2015	07/02/2015	03/06/2007	03/07/2007	05/09/2007	05/10/2007	12/10/2007	12/11/2007	03/06/2007	03/07/2007	05/14/2007	05/15/2007
			Field Sample ID	M260B5X	M260B6	M260B6X	M261A1	M261A1X	M261A2	M261A2X	M261A3	M261A3X	M262A1	M262A1X	M262A2	M262A2X
			SDG	CS105	CS257	CS257	1028315	1028315	1037739	1037739	1069298	1069298	1028315	1028315	1038388	1038388
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.42	-	3.29	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	2.21	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-230	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	7.44	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	277000	-	277000	-	269000	-	162000	-	125000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	774000	-	783000	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	774000	-	783000	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	11.1	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	9.4	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	15000	-	15000	-	510	-	350	-	140	-	0.5J	-	1J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	1300	-	35300	-	29200	-	16100	-	8780	-	8230	-
Iron	ug/L	Y	300	-	620	-	34400	-	28000	-	12300	-	7920	-	8060	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	800U	-	1000U	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	98900	-	88400	-	125000U	-	14500J	-	10000U	-	25000U	-	50000U
Sulfide	ug/L	N	NS	5000	-	11300J	-	4200U	-	530U	-	530U	-	4600J	-	1100U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262
			Sample Date	12/18/2007	12/19/2007	06/25/2008	06/26/2008	11/10/2008	11/11/2008	07/09/2009	07/10/2009	11/19/2009	11/20/2009	05/13/2010	05/14/2010
			Field Sample ID	M262A3	M262A3X	M262A4	M262A4X	M262A5	M262A5X	M262A6	M262A6X	M262A7	M262A7X	M262A8-100513	M262A8X-100514
			SDG	1070580	1070580	1098093	1098093	1119533	1119533	1153027	1153027	1172227	1172227	RFS42	RFS42
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	4	-	3.61	-	3.44	-	3.69	-	1.97	0.8
DO	mg/L	N	NS	-	-	0.76	-	0	-	0	-	1.37	-	3.17	3.44
ORP	millivolts	N	NS	-	-	-100	-	-11	-	-60	-	-49	-	-74	-65
pH	pH Units	N	NS	-	-	6.66	-	6.91	-	6.11	-	6.61	-	6.53	6.36
Alkalinity to pH 4.5	ug/L	N	NS	-	166000	-	142000	-	155000	-	135000	-	147000	-	115000
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	10.2U	-	10.0U	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.6J	-	0.5J	-	0.5U	-	0.5U	-	0.8J	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	8640	-	8610	-	1030	-	8420	-	5870	-	10400	-
Iron	ug/L	Y	300	8700	-	8500	-	471	-	2300	-	6000	-	9760	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	400U	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	10000U	-	50000U	-	25000U	-	12500U	-	10000U	-	5000U
Sulfide	ug/L	N	NS	-	530U	-	4200U	-	4000J	-	530U	-	1100U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262
			Sample Date	09/22/2010	09/23/2010	06/21/2011	03/21/2012	05/06/2013	05/06/2013	06/20/2013	06/20/2013	06/20/2013	10/01/2013	07/02/2014	07/02/2014	07/31/2014
			Field Sample ID	M262A9	M262A9X	M262B1X	M262B2X	M262B3	M262B3X	M262B4	M262B4X	M262B4X	M262B5X	M262B6	M262B6X	M262B7
			SDG	RFS68	RFS68	RFT35	RFU27	RFZ29	RFZ29	CP011	CP009	CP010	CS019	CP401	CP401	CP438
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	0.48	3.2	3.2	2.64	2.64	2.64	-	3.04	3.04	2.95
DO	mg/L	N	NS	-	-	-	4.53	11.76	11.76	1.33	1.33	1.33	-	0.26	0.26	0.49
ORP	millivolts	N	NS	-	-	-	-96	-25.4	-25.4	-6.5	-6.5	-6.5	-	-191.4	-191.4	-221.6
pH	pH Units	N	NS	-	-	-	6.32	6.72	6.72	6.72	6.72	6.72	-	9.87	9.87	7.22
Alkalinity to pH 4.5	ug/L	N	NS	-	146000	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	0.74J	-	0.54J	-	-	-	245	-	28.6
Arsenic	ug/L	Y	3	-	-	-	-	0.40U	-	0.42U	-	-	-	240	-	21.9
Benzene	ug/L	N	1	-	2J	1J	11	-	9	-	20	-	37	-	14	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	10900	-	-	-	925	-	808	-	-	-	2970	-	2400
Iron	ug/L	Y	300	10900	-	-	-	685	-	561	-	-	-	386	-	1230
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	5000U	-	-	-	133000	-	-	70900	-	-	774000	-
Sulfide	ug/L	N	NS	-	530U	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-262	MW-262	MW-262	MW-262	MW-262	MW-262	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263
			Sample Date	07/31/2014	08/29/2014	01/16/2015	01/16/2015	11/28/2017	11/28/2017	03/08/2007	03/09/2007	05/16/2007	05/17/2007	12/12/2007	12/13/2007	06/30/2008
			Field Sample ID	M262B7X	M262B8X	M262B9	M262B9X	M262C3	M262C3X	M263A1	M263A1X	M263A2	M263A2X	M263A3	M263A3X	M263A4
			SDG	CP438	CS149	CP644	CP644	CQ906	CQ906	1028748	1028748	1038811	1038811	1069705	1069705	1098780
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.95	4.64	0.95	0.95	2.91	2.91	-	-	-	-	-	-	-
DO	mg/L	N	NS	0.49	-	4.96	4.96	4.28	4.28	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-221.6	-	-194.7	-194.7	-196.5	-196.5	-	-	-	-	-	-	-
pH	pH Units	N	NS	7.22	-	9.13	9.13	7.60	7.60	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	808000	-	1320000	-	1210000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	12.6	-	4.2	-	-	-	-	-	-	-	10.2U
Arsenic	ug/L	Y	3	-	-	11.8	-	3.2	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	14	47	-	5	-	22	-	89	-	64	-	59	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	1430	-	423	-	22500	-	31400	-	20900	-	21800
Iron	ug/L	Y	300	-	-	416	-	164J	-	17800	-	28200	-	19200	-	22800
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	200U	-	400U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	300000	-	-	317000	-	272000	-	252000	-	111000	-	5000U	-
Sulfide	ug/L	N	NS	-	-	-	1100J	-	-	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263	MW-263
			Sample Date	07/01/2008	10/20/2008	10/21/2008	07/06/2009	07/07/2009	11/23/2009	11/24/2009	06/02/2010	06/02/2010	09/20/2010	09/21/2010	06/07/2011
			Field Sample ID	M263A4X	M263A5	M263A5X	M263A6	M263A6X	M263A7	M263A7X	M263A8-100602	M263A8X-100602	M263A9	M263A9X	M263B1X
			SDG	1098780	1116164	1116164	1152446	1152446	1172674	1172674	RFS45	RFS45	RFS68	RFS68	RFT29
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	7.64	-	6.96	-	7.55	-	1.33	1.33	0.53	0	0
DO	mg/L	N	NS	-	0	-	0	-	0.97	-	18.41	18.41	8.51	10.11	8.4
ORP	millivolts	N	NS	-	-158	-	-134	-	-129	-	-143	-143	-187	-104	-80
pH	pH Units	N	NS	-	7.25	-	6.60	-	6.71	-	6.62	6.62	7.33	6.47	6.59
Alkalinity to pH 4.5	ug/L	N	NS	1290000	-	1120000	-	1350000	-	1140000	-	2080000	-	1000000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	63	-	60	-	64	-	99	-	66	-	86	64
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	32500	-	24000	-	47600	-	50500	-	36600	-	-
Iron	ug/L	Y	300	-	29300	-	28300	-	36300	-	47100	-	32900	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	400U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	5000U	-	2500U	-	2500U	-	2500U	-	10000U	-	2500U	-
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	600J	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-263	MW-263	MW-263	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264
			Sample Date	03/09/2012	04/09/2013	05/29/2014	03/08/2007	03/09/2007	05/15/2007	05/16/2007	10/26/2007	12/04/2007	12/05/2007	07/23/2008	07/24/2008	10/20/2008
			Field Sample ID	M263B2X	M263B3X	M263B4X	M264A1	M264A1X	M264A2	M264A2X	M264A7	M264A3	M264A3X	M264A4	M264A4X	M264A5
			SDG	RFU16	RFY63	CS106	1028748	1028748	1038619	1038619	1168255	1068390	1068390	1102261	1102261	1116164
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.85	-	7.97	-	-	-	-	-	-	-	7.3	-	7.49
DO	mg/L	N	NS	9.1	-	1.22	-	-	-	-	-	-	-	0.19	-	0
ORP	millivolts	N	NS	86	-	-302	-	-	-	-	-	-	-	-139	-	-117
pH	pH Units	N	NS	6.40	-	6.82	-	-	-	-	-	-	-	7.36	-	7.57
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	1480000	-	1420000	-	-	1390000	-	1390000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	460U	-	460U	-	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	58	75	60	-	20J	-	10J	-	-	9J	-	9J	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	7100	-	4880	-	3450	3650	-	4890	-	3910
Iron	ug/L	Y	300	-	-	-	4660	-	2740	-	3010	3070	-	3100	-	2770
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	200U	-	40U	-	-	400U	-	1000U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	5000U	-	4900J	-	-	2500U	-	2500U	-
Sulfide	ug/L	N	NS	-	-	-	-	4200U	-	800J	-	-	530U	-	1000J	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264	MW-264
			Sample Date	10/21/2008	06/25/2009	06/26/2009	10/27/2009	06/14/2010	06/15/2010	09/16/2010	09/16/2010	05/23/2011	05/24/2011	02/29/2012	03/21/2013
			Field Sample ID	M264A5X	M264A6	M264A6X	M264A7X	M264A8-100614	M264A8X-100615	M264A9	M264A9X	M264B1	M264B1X	M264B2X	M264B3X
			SDG	1116164	1151128	1151128	1168255	RFS47	RFS47	RFS67	RFS67	RFT24	RFT24	RFU14	RFY20
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	6.9	-	-	3.53	0.95	2.91	2.91	7.5	20.83	-	7.21
DO	mg/L	N	NS	-	0	-	-	6.95	7.13	7.78	7.78	6.67	7.72	7.82	-
ORP	millivolts	N	NS	-	-125	-	-	-83	-169	0	0	-38	-6	-	-
pH	pH Units	N	NS	-	6.54	-	-	7.22	7.47	0.00	0.00	8.09	7.50	-	-
Alkalinity to pH 4.5	ug/L	N	NS	1440000	-	1350000	1390000	-	1320000	-	1350000	-	1280000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	460U	-	460U	-	460U	-	460U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3U	-	13U	5U	-	5U	-	1J	-	5U	5U	3J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	3130	-	-	3470	-	3250	-	2640	-	-	-
Iron	ug/L	Y	300	-	2890	-	-	2570	-	2660	-	2510	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	40U	-	40U	-	400U	-	40U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	5000U	-	2500U	5000U	-	2500U	-	5000U	-	5000U	-	-
Sulfide	ug/L	N	NS	1000J	-	530U	-	-	720J	-	690J	-	530U	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-264	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265
			Sample Date	09/10/2014	03/08/2007	03/09/2007	05/15/2007	05/16/2007	12/05/2007	12/06/2007	07/23/2008	07/24/2008	11/05/2008	11/06/2008	06/17/2009	06/17/2009
			Field Sample ID	M264B4X	M265A1	M265A1X	M265A2	M265A2X	M265A3	M265A3X	M265A4	M265A4X	M265A5	M265A5X	M265A6	M265A6X
			SDG	CS155	1028748	1028748	1038619	1038619	1068623	1068623	1102261	1102261	1118813	1118813	1149895	1149895
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	7.74	-	-	-	-	-	-	4.96	-	5.03	-	4.5	4.5
DO	mg/L	N	NS	-	-	-	-	-	-	-	0	-	0	-	0	0
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-410	-	-347	-	-278	-278
pH	pH Units	N	NS	-	-	-	-	-	-	-	9.90	-	9.84	-	961.00	961.00
Alkalinity to pH 4.5	ug/L	N	NS	-	-	197000	-	725000	-	1520000	-	765000	-	1360000	-	1190000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	12000	-	78300	-	297000	-	39900	-	201000	-	262000
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	8J	-	75000	-	3400	-	110000	-	20000	-	21000	-	3100
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	1830	-	3690	-	675	-	8870	-	4800	-	3170	-
Iron	ug/L	Y	300	-	996	-	778	-	128J	-	503	-	533	-	452	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	2000U	-	400U	-	400U	-	400U	-	4000U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	10000U	-	133000	-	10800J	-	10000U	-	12500U	-	12500U
Sulfide	ug/L	N	NS	-	-	21300	-	4400	-	77900	-	25900	-	45900	-	8800

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265
			Sample Date	11/18/2009	11/19/2009	06/14/2010	06/15/2010	09/16/2010	09/16/2010	05/23/2011	05/24/2011	11/17/2011	02/28/2012	08/21/2012	03/28/2013
			Field Sample ID	M265A7	M265A7X	M265A8-100614	M265A8X-100615	M265A9	M265A9X	M265B1	M265B1X	M265B2X	M265B3X	M265B4X	M265B5X
			SDG	1171988	1171988	RFS47	RFS47	RFS67	RFS67	RFT24	RFT24	RFT87	RFU13	RFV30	RFY40
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.06	-	6.07	0	4.51	4.51	7.42	-	-	-	-	4.99
DO	mg/L	N	NS	0.48	-	4.55	4.81	5.38	5.38	4.26	4.26	-	5.58	4.8	-
ORP	millivolts	N	NS	-367	-	-231	0	0	0	-156	-	-	-	-	-
pH	pH Units	N	NS	9.87	-	9.87	0.00	0.00	0.00	9.68	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	1270000	-	633000	-	853000	-	886000	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	285000	-	60300	-	95800	-	148000	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	19000	-	95000	-	110000	-	80000	66000	3300	29000	5300
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	4700	-	4180	-	2190	-	1040	-	-	-	-	-
Iron	ug/L	Y	300	659	-	330	-	561	-	501	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	200U	-	1000U	-	2000U	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	10000U	-	25000U	-	18600	-	5000U	-	-	-	-
Sulfide	ug/L	N	NS	-	39900	-	4300	-	15900	-	9500	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-265	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266
			Sample Date	08/16/2013	09/27/2013	09/27/2013	02/07/2014	11/13/2014	07/02/2015	11/01/2017	03/08/2007	03/09/2007	05/21/2007	05/22/2007	12/06/2007	12/07/2007
			Field Sample ID	M265B6	D0927131	M265B7X	M265B8X	M265B9X	M265C1X	M265C7	M266A1	M266A1X	M266A2	M266A2X	M266A3	M266A3X
			SDG	CP076	CS017	CS017	CS060	CS185	CS257	CS620	1028748	1028748	1039429	1039429	1068893	1068893
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.84	5.3	5.3	6.54	-	4.46	5.97	-	-	-	-	-	-
DO	mg/L	N	NS	0.02	-	-	-	-	1.76	0.16	-	-	-	-	-	-
ORP	millivolts	N	NS	-408.1	-	-	-	-	-359	59	-	-	-	-	-	-
pH	pH Units	N	NS	9.89	-	-	-	-	9.43	7.59	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	509000	-	421000	-	571000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	981000	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	1850000	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	15.8	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	9.8	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	97000	48000	45000	63000	20000	220	23000	-	240	-	130	-	170
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	1580	-	-	-	-	-	-	14300	-	6350	-	9770	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	4800	-	7050	-	7270	-
Methane	ug/L	N	NS	21000	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	800U	-	-	-	-	-	-	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	7500J	-	-	-	-	-	-	-	10000J	-	50000U	-	50000U
Sulfide	ug/L	N	NS	104000	-	-	-	-	-	-	-	530U	-	6400J	-	2100U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266
			Sample Date	06/25/2008	06/26/2008	10/23/2008	10/24/2008	07/15/2009	07/16/2009	11/09/2009	11/10/2009	06/01/2010	06/02/2010	09/14/2010	09/14/2010
			Field Sample ID	M266A4	M266A4X	M266A6	M266A6X	M266A7	M266A7X	M266A8	M266A8X	M266A9-100601	M266A9X-100602	M266B1	M266B1X
			SDG	1098093	1098093	1116797	1116797	1153802	1153802	1170404	1170404	RFS45	RFS45	RFS67	RFS67
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	2.91	-	2.41	-	2.63	-	0.87	0	0.66	0.66
DO	mg/L	N	NS	-	-	0	-	1.16	-	0.8	-	2.39	2.37	2.81	2.81
ORP	millivolts	N	NS	-	-	-105	-	-125	-	-95	-	-132	0	-150	-150
pH	pH Units	N	NS	-	-	6.58	-	6.33	-	6.47	-	6.50	0.00	6.51	6.51
Alkalinity to pH 4.5	ug/L	N	NS	-	472000	-	575000	-	363000	-	389000	-	332000	-	475000
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.2U	-	10.0U	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	77	-	110	-	130	-	98	-	60	-	150
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	9140	-	7560	-	2050	-	8830	-	8230	-	6340	-
Iron	ug/L	Y	300	6160	-	6890	-	1890	-	5100	-	5190	-	5830	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	200U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	125000U	-	50000U	-	25000U	-	50000U	-	12500U	-	25000U
Sulfide	ug/L	N	NS	-	4200U	-	4200U	-	530U	-	530U	-	530U	-	2100

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266	MW-266
			Sample Date	06/14/2011	04/26/2012	04/11/2013	08/20/2013	08/14/2014	08/15/2014	12/04/2014	12/04/2014	12/04/2014	12/04/2014	12/04/2014	01/30/2018
			Field Sample ID	M266B2X	M266B3X	M266B4X	M266B5	M266B6	D0814148	D1204148	D1204148	M266B8	M266B8	M266B8X	M266C7X
			SDG	RFT32	RFU49	RFY73	CP079	CP460-CP461	CP460-CP461	CP613	CP614	CP613	CP614	CP613	CS639
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	FD	FD	FD	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.63	0.82	2.6	2.63	2.67	-	2.58	2.58	2.58	2.58	2.58	-
DO	mg/L	N	NS	2.53	2.32	2.91	0.15	2.81	-	1.39	1.39	1.39	1.39	1.39	-
ORP	millivolts	N	NS	-106	-78	-200	-60.2	-231	-	-200	-200	-200	-200	-200	-
pH	pH Units	N	NS	6.73	6.81	6.73	6.40	7.18	-	6.63	6.63	6.63	6.63	6.63	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	616000	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	616000	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	1.1J	-	1.0J	0.82U	-	0.86UJ	-	-	-
Arsenic	ug/L	Y	3	-	-	-	0.83J	0.82U	0.82U	-	0.82U	-	0.82U	-	-
Benzene	ug/L	N	1	110	24	140	100	-	22	34	-	-	-	32	5
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	4220	-	6320	4880	-	4860	-	-	-
Iron	ug/L	Y	300	-	-	-	-	4370	4260	-	5020	-	5090	-	-
Methane	ug/L	N	NS	-	-	-	14000	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	38400	-	1500U	3700J	-	-	-	3400J	-
Sulfide	ug/L	N	NS	-	-	-	1000J	-	3400J	600U	-	-	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267
			Sample Date	03/06/2007	03/07/2007	05/22/2007	05/23/2007	12/10/2007	12/11/2007	07/17/2008	07/18/2008	10/27/2008	10/28/2008	07/20/2009	07/21/2009	11/05/2009
			Field Sample ID	M267A1	M267A1X	M267A2	M267A2X	M267A3	M267A3X	M267A4	M267A4X	M267A5	M267A5X	M267A6	M267A6X	M267A7
			SDG	1028315	1028315	1039651	1039651	1069298	1069298	1101417	1101417	1117175	1117175	1154382	1154382	1170013
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	3.63	-	3.58	-	4.63	-	3.59
DO	mg/L	N	NS	-	-	-	-	-	-	0.06	-	0	-	1.36	-	0.43
ORP	millivolts	N	NS	-	-	-	-	-	-	-343	-	-353	-	-273	-	-294
pH	pH Units	N	NS	-	-	-	-	-	-	6.92	-	6.44	-	5.49	-	6.52
Alkalinity to pH 4.5	ug/L	N	NS	-	578000	-	605000	-	603000	-	736000	-	738000	-	725000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	28	-	28	-	22	-	13J	-	5J	-	11J	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	22700	-	13100	-	13300	-	5830	-	3680	-	2100	-	6260
Iron	ug/L	Y	300	19400	-	11800	-	2690	-	1360	-	375	-	247	-	170J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	25000U	-	17100J	-	5900J	-	2500U	-	5000U	-	5000U	-
Sulfide	ug/L	N	NS	-	1100U	-	530U	-	530U	-	530U	-	600J	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267
			Sample Date	11/06/2009	09/20/2010	09/21/2010	06/06/2011	06/07/2011	11/14/2011	11/15/2011	03/06/2012	03/07/2012	08/20/2012	08/21/2012	03/25/2013	03/26/2013
			Field Sample ID	M267A7X	M267A9	M267A9X	M267B2	M267B2X	M267B3	M267B3X	M267B4	M267B4X	M267B5	M267B5X	M267B6	M267B6X
			SDG	1170013	RFS68	RFS68	RFT29	RFT29	RFT86	RFT86	RFU15	RFU15	RFV30	RFV30	RFY32	RFY32
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	2.02	0	1.66	0.1	-0.13	0.49	5.29	4.96	-	-
DO	mg/L	N	NS	-	-	-	15.89	5.07	15.87	6.24	15.85	5.64	15.53	5.6	-	-
ORP	millivolts	N	NS	-	-	-	-260	-101	-233	-103	-212	-82	-311	-208	-	-
pH	pH Units	N	NS	-	-	-	6.82	6.61	6.90	6.73	16.39	6.98	7.50	7.18	-	-
Alkalinity to pH 4.5	ug/L	N	NS	807000	-	711000	-	570000	-	733000	-	574000	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	700U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	652000	-	433000
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	12	-	10	-	11	-	5	-	8	-	5J	-	5
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	4130	-	11000	-	3780	-	21000	-	4080	-	9020	-
Iron	ug/L	Y	300	-	3910	-	6000	-	424	-	6440	-	237	-	5600	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	400U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	12500U	-	20700	-	15300	-	16500	-	9700	-	5000U	-	23200
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	1000J	-	600U	-	1400J	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-267	MW-267	MW-267	MW-267	MW-267	MW-267	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268
			Sample Date	09/26/2013	09/27/2013	05/27/2014	05/28/2014	07/22/2015	07/22/2015	02/28/2007	03/01/2007	05/16/2007	05/17/2007	12/06/2007	12/07/2007	06/25/2008
			Field Sample ID	M267B7	M267B7X	M267B8	M267B8X	M267B9	M267B9X	M268A1	M268A1X	M268A2	M268A2X	M268A3	M268A3X	M268A4
			SDG	CS017	CS017	CS105	CS105	CS266	CS266	1027540	1027540	1038811	1038811	1068893	1068893	1098093
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.11	4.92	13.47	6.34	18.21	18.21	-	-	-	-	-	-	5.1
DO	mg/L	N	NS	0.74	0.38	1.54	-	0.51	0.51	-	-	-	-	-	-	0.58
ORP	millivolts	N	NS	-360	-500	-310	-	-111	-111	-	-	-	-	-	-	-121
pH	pH Units	N	NS	6.79	6.83	6.79	-	6.67	6.67	-	-	-	-	-	-	6.71
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	629000	-	591000	-	664000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	413000	-	485000	-	1900000	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	275
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	1J	-	1	-	0.5UJ	-	47	-	6	-	16	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	18600	-	24700	-	8240	-	23500	-	31900	-	28400	-	29400
Iron	ug/L	Y	300	19500	-	21500	-	3280	-	22900	-	29800	-	21900	-	26300
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	23000	-	7400	-	50000U	-	50000U	-	25000U	-	50000U	-
Sulfide	ug/L	N	NS	-	600U	-	600U	-	73300	-	4200U	-	1100U	-	2100U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268
			Sample Date	06/26/2008	10/23/2008	10/24/2008	07/15/2009	07/16/2009	11/09/2009	11/10/2009	06/01/2010	06/02/2010	09/14/2010	09/14/2010	06/06/2011
			Field Sample ID	M268A4X	M268A5	M268A5X	M268A6	M268A6X	M268A7	M268A7X	M268A8-100601	M268A8X-100602	M268A9	M268A9X	M268B1
			SDG	1098093	1116797	1116797	1153802	1153802	1170404	1170404	RFS45	RFS45	RFS67	RFS67	RFT29
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	5.48	-	4.85	-	5.06	-	1.5	0	0.66	0.66	3.4
DO	mg/L	N	NS	-	0	-	1.62	-	1.36	-	4.86	4.86	5.42	5.42	5.07
ORP	millivolts	N	NS	-	-113	-	-88	-	-72	-	-102	-142	-132	-132	-114
pH	pH Units	N	NS	-	6.58	-	5.99	-	6.23	-	6.49	6.60	6.52	6.52	6.93
Alkalinity to pH 4.5	ug/L	N	NS	600000	-	634000	-	545000	-	543000	-	541000	-	668000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	211	-	304	-	189	-	363	-	322	-	433
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3J	-	10	-	8	-	6	-	0.8J	-	5J	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	24100	-	40500	-	37500	-	30100	-	25800	-	-
Iron	ug/L	Y	300	-	23400	-	24600	-	29500	-	28000	-	25900	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	200U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	125000U	-	25000U	-	25000U	-	50000U	-	25000U	-	25000U	-
Sulfide	ug/L	N	NS	4200U	-	50700	-	530U	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268	MW-268
			Sample Date	06/07/2011	04/23/2012	04/24/2012	04/10/2013	04/11/2013	09/27/2013	10/18/2013	08/15/2014	08/15/2014	12/10/2014	12/10/2014	07/07/2015
			Field Sample ID	M268B1X	M268B2	M268B2X	M268B3	M268B3X	M268B4	M268B5	M268B6	M268B6X	M268B8	M268B8X	M268B9
			SDG	RFT29	RFU46	RFU46	RFY73	RFY73	CP122	CP156	CP460-CP461	CP460-CP461	CP622	CP622	CS258
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0	3.27	0.34	5.13	5.11	-	-	-	-	4.59	4.59	-
DO	mg/L	N	NS	5.06	4.62	4.55	3.1	0.44	-	-	-	-	3.96	3.96	-
ORP	millivolts	N	NS	-127	-74	-90	-142	-136	-	-	-	-	-111.3	-111.3	-
pH	pH Units	N	NS	6.64	6.83	6.83	7.00	6.82	-	-	-	-	6.80	6.80	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	533000	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	700U	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	533000	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	178	-	287	-	228	109	235	-	180	-	248
Arsenic	ug/L	Y	3	-	-	-	264	-	236	18.4	216	-	195	-	235
Benzene	ug/L	N	1	1J	-	6	-	0.5J	-	-	-	0.8J	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	38100	-	-	23500	26100	-	27000	-	27100
Iron	ug/L	Y	300	-	-	-	37400	-	-	43.0U	25900	-	27100	-	26300
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	40U	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	25000U	-	-	-	2200J	-	3000J	-
Sulfide	ug/L	N	NS	-	-	-	-	600U	140J	-	-	600U	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-268	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269
			Sample Date	07/08/2015	02/28/2007	03/01/2007	05/14/2007	05/15/2007	12/17/2007	12/18/2007	06/23/2008	06/24/2008	11/17/2008	11/18/2008	07/09/2009	07/10/2009
			Field Sample ID	M268B9X	M269A1	M269A1X	M269A2	M269A2X	M269A3	M269A3X	M269A4	M269A4X	M269A5	M269A5X	M269A6	M269A6X
			SDG	CS258	1027540	1027540	1038388	1038388	1070339	1070339	1097656	1097656	1120766	1120766	1153027	1153027
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.87	-	-	-	-	-	-	362	-	4.01	-	4.04	-
DO	mg/L	N	NS	4.28	-	-	-	-	-	-	0.64	-	0.99	-	0	-
ORP	millivolts	N	NS	-122	-	-	-	-	-	-	-72	-	-57	-	-65	-
pH	pH Units	N	NS	6.48	-	-	-	-	-	-	6.92	-	7.08	-	6.15	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	190000	-	181000	-	194000	-	204000	-	202000	-	207000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	412000	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	412000	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	32.4	-	10.0U	-	7.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	9	-	0.5J	-	0.8J	-	0.8J	-	2J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	16700	-	14700	-	9130	-	52400	-	10400	-	10100	-
Iron	ug/L	Y	300	-	7750	-	7920	-	9160	-	7980	-	9620	-	9080	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	10000U	-	95000	-	78400	-	90000	-	92500	-	78000	-	98300
Sulfide	ug/L	N	NS	680U	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269	MW-269	MW-273	MW-273
			Sample Date	11/19/2009	11/20/2009	05/13/2010	05/14/2010	09/22/2010	09/23/2010	06/20/2011	06/21/2011	03/20/2012	03/21/2012	03/14/2007	03/15/2007
			Field Sample ID	M269A7	M269A7X	M269A8-100513	M269A8X-100514	M269A9	M269A9X	M269B1	M269B1X	M269B2	M269B2X	M273A1	D0315071
			SDG	1172227	1172227	RFS42	RFS42	RFS68	RFS68	RFT35	RFT35	RFU27	RFU27	1029581	1029581
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.59	-	-	-	-	-	2.89	7.7	1.19	0.54	-	-
DO	mg/L	N	NS	1.05	-	-	-	-	-	14.52	2.39	8.16	3.74	-	-
ORP	millivolts	N	NS	-51	-	-	-	-	-	-86	-103	-47	-79	-	-
pH	pH Units	N	NS	6.47	-	-	-	-	-	6.97	6.73	7.15	6.55	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	197000	-	198000	-	198000	-	-	-	-	-	983000
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	-	-	-	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	7.4J	-	7.2U	-	9.8U	-	133	-	17.2J	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.7J	-	0.5U	-	0.5U	-	1600
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	13300	-	10900	-	8960	-	-	-	-	-	37900	-
Iron	ug/L	Y	300	9990	-	9360	-	8410	-	-	-	-	-	45600	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	-	-	-	-	400U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	110000	-	98600	-	96500	-	-	-	-	-	49000
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	-	-	-	-	1100U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273
			Sample Date	03/15/2007	05/09/2007	05/10/2007	12/10/2007	12/11/2007	07/22/2008	07/23/2008	11/03/2008	11/04/2008	05/12/2009	05/13/2009	11/09/2009	11/10/2009
			Field Sample ID	M273A1X	M273A2	M273A2X	M273A3	M273A3X	M273A4	M273A4X	M273A5	M273A5X	M273A6	M273A6X	M273A7	M273A7X
			SDG	1029581	1037739	1037739	1069298	1069298	1102068	1102068	1118353	1118353	1144692	1144692	1170404	1170404
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	2.82	-	3.05	-	2.73	-	2.65	-	2.81	-
DO	mg/L	N	NS	-	-	-	1.28	-	0	-	0	-	0.39	-	0.47	-
ORP	millivolts	N	NS	-	-	-	-178	-	-350	-	-191	-	-312	-	-313	-
pH	pH Units	N	NS	-	-	-	7.32	-	6.74	-	6.36	-	6.24	-	6.42	-
Alkalinity to pH 4.5	ug/L	N	NS	1150000	-	1080000	-	1040000	-	1320000	-	1260000	-	1140000	-	1430000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	20.5	-	17.5J	-	14.9J	-	14.2J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1500	-	940	-	1300	-	550	-	670	-	1300	-	1000
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	37500	-	20900	-	18300	-	8540	-	13200	-	51200	-
Iron	ug/L	Y	300	-	34300	-	17900	-	395	-	6360	-	2150	-	169J	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	400U	-	400U	-	40U	-	400U	-	400U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	60500	-	30600	-	2500U	-	2500U	-	2500U	-	6700J	-	2500U
Sulfide	ug/L	N	NS	1100U	-	530U	-	3600	-	3500	-	1100J	-	3300	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273	MW-273
			Sample Date	06/07/2011	06/08/2011	11/14/2011	11/15/2011	03/06/2012	03/07/2012	08/08/2012	08/09/2012	03/26/2013	03/27/2013	09/26/2013	09/27/2013	05/27/2014
			Field Sample ID	M273A8	M273A8X	M273A9	M273A9X	M273B1	M273B1X	M273B2	M273B2X	M273B3	M273B3X	M273B4	M273B4X	D0527141
			SDG	RFT30	RFT30	RFT86	RFT86	RFU15	RFU15	RFV27	RFV27	RFY36	RFY36	CS017	CS017	CS105
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.09	0.84	3.06	0	-	-	7.93	4.35	4.24	2.85	4.12	3.56	4.51
DO	mg/L	N	NS	5.31	2.78	4.55	2.84	-	-	8.62	2.7	1.03	-	0.31	-	1.35
ORP	millivolts	N	NS	-201	-161	-236	-197	-	-	-	-259	-374	-	-353	-	-352
pH	pH Units	N	NS	7.31	6.90	7.44	6.81	-	-	-	7.25	6.80	-	6.83	-	6.80
Alkalinity to pH 4.5	ug/L	N	NS	-	1280000	-	1450000	-	1180000	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	700U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	1420000	-	534000	-	959000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	1420000	-	534000	-	959000	-
Arsenic	ug/L	N	3	15.1J	-	-	-	5.2J	-	13.6	-	6.7	-	13.6	-	7.8
Arsenic	ug/L	Y	3	-	-	-	-	-	-	17.3	-	4.8	-	13.3	-	7.9
Benzene	ug/L	N	1	-	1300	-	1200	-	1900	-	1400	-	2000	-	1500	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	4260	-	4030	-	4210	-	5210	-	7640	-	2090	-	6550
Iron	ug/L	Y	300	52.2U	-	863	-	3050	-	50.7J	-	2590	-	206	-	196J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	400U	-	400U	-	40U	-	40U	-	40U	-	1600	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2500U	-	2500U	-	2500U	-	2500U	-	658000	-	27400	-
Sulfide	ug/L	N	NS	-	1300J	-	1600J	-	600U	-	4100	-	700J	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-273	MW-273	MW-273	MW-273	MW-273	MW-281	MW-281	MW-281	MW-281	MW-281	MW-281	MW-281	MW-281
			Sample Date	05/27/2014	05/28/2014	05/28/2014	07/01/2015	07/02/2015	07/26/2011	11/17/2011	11/17/2011	03/09/2012	08/09/2012	03/21/2013	09/26/2013	05/30/2014
			Field Sample ID	M273B5	D0528141	M273B5X	M273B6	M273B6X	M281A1X	D1117111	M281A2X	M281A3X	M281A4X	M281A5X	M281A6X	M281A7X
			SDG	CS105	CS105	CS105	CS257	CS257	RFT46	RFT87	RFT87	RFU16	RFV27	RFY20	CS016	CS107
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.51	3.12	3.12	-	10.51	1	-	-	0.66	4.56	4.99	5.56	4.83
DO	mg/L	N	NS	1.35	-	-	-	0.21	5.78	-	-	5.5	5.41	0.56	0.09	1.21
ORP	millivolts	N	NS	-352	-	-	-	-184	-50	-	-	-62	-171	-307	-268	-512
pH	pH Units	N	NS	6.80	-	-	-	6.97	6.51	-	-	6.42	6.64	6.69	6.59	6.71
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	813000	882000	-	925000	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	700U	-	700U	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	813000	882000	-	925000	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	9.7	-	-	14.2	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	7.9	-	-	14.9	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	1600	1600	-	1300	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	6660	-	-	4250	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	236	-	-	78.5U	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	400U	-	400U	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2500U	2500U	-	2500U	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	600U	3600	-	800J	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-281	MW-281	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3
			Sample Date	01/14/2015	11/01/2017	03/20/2002	10/21/2002	10/21/2002	02/27/2003	02/27/2003	09/23/2004	05/25/2005	10/27/2005	06/09/2006	11/09/2006	05/23/2007
			Field Sample ID	M281A8X	M281B3	M0003A1	M003A2X	M003A2Y	M003A3X	M003A3Y	M003A4	M003A5	M003A6X	M003A7	M003A8	M003A9
			SDG	CS194	CS620	HPA01	RFE33	RFE33	RFE65	RFE65	RFF25	RFF55	965062	993031	1013690	1039652
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.65	5.62	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	0.25	0.49	-	2	2	0.88	0.88	-	-	-	-	-	-
ORP	millivolts	N	NS	-137	129	-	138	138	51	51	-	-	-	-	-	-
pH	pH Units	N	NS	6.67	6.56	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	124000	-	108000	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	410U	-	410U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	124000	-	108000	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	7.7J	-	4.9U	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	74200	-	81700	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	400U	-	40U	-	1000U	40U	40U	40U	45J	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	62000	-	37900	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3
			Sample Date	12/12/2007	07/30/2008	07/31/2008	06/02/2009	06/03/2009	04/28/2010	04/29/2010	06/27/2011	06/28/2011	03/21/2012	03/22/2012	02/26/2013	02/27/2013
			Field Sample ID	M003B1	M003B2	M003B2X	M003B3	M003B3X	M003B4	M003B4X	M003B5	M003B5X	M003B6	M003B6X	M003B7	M003B7X
			SDG	1069481	1103309	1103309	1147599	1147599	RFS40	RFS40	RFT37	RFT37	RFU28	RFU28	RFX80	RFX80
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	6.86	-	7.53	-	3.18	1.51	1.83	1.79	9.14	1.33	7.85	7.51
DO	mg/L	N	NS	-	0.77	-	1.2	-	16.84	7.09	16.12	7.28	14.1	7.52	1.9	1.08
ORP	millivolts	N	NS	-	25	-	-49	-	3	19	51	50	31	41	143	-184
pH	pH Units	N	NS	-	5.75	-	5.87	-	5.71	5.56	5.82	9.81	6.28	5.90	5.95	5.84
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	181000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	181000
Arsenic	ug/L	N	3	-	12.1J	-	13.4J	-	23.7	-	13.0J	-	5.1U	-	2.2	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	0.40U	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	30200	-	-	-	-	-	-	-	-	-	4800	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	1340	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	70400
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-3	MW-3	MW-3	MW-3	MW-310	MW-310	MW-310	MW-310	MW-312	MW-312	MW-312	MW-312	MW-312
			Sample Date	03/31/2014	04/01/2014	03/05/2018	03/06/2018	10/07/2010	03/29/2012	04/01/2013	02/07/2014	10/07/2010	10/07/2010	04/26/2012	10/01/2013	08/27/2014
			Field Sample ID	M003B8	M003B8X	M003C3	M003C3X	M310A1	M310A2X	M310A3X	M310A4X	D1007103	M312A1	M312A2X	M312A3X	M312A4X
			SDG	CS079	CS079	CS656	CS656	RFS71	RFU34	RFY49	CS060	RFS71	RFS71	RFU49	CS019	CS147
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.05	7.53	-	-	2.97	2.04	-	8.59	5.27	5.27	0.09	3.81	3.94
DO	mg/L	N	NS	6.96	1.89	-	-	8.93	10.23	-	-	4.63	4.63	4.59	0.17	-
ORP	millivolts	N	NS	-185	-238	-	-	-23	-6	-	-	-37	-37	-108	-193	-
pH	pH Units	N	NS	5.91	5.86	-	-	8.02	6.64	-	-	8.10	8.10	8.36	6.25	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	185000	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	1700U	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	185000	-	214000	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	3.2	-	2.0	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	1.4J	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	3J	0.5U	0.5U	0.5U	27	27	8	24	13
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	14200	-	4110	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	10000	-	323	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	9800	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	74400	-	74100	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	600U	-	700U	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-314	MW-314	MW-314	MW-314	MW-314	MW-314	MW-314	MW-314	MW-314	MW-314	MW-315
			Sample Date	06/24/2010	07/08/2010	03/27/2012	03/28/2012	04/10/2013	04/11/2013	03/27/2014	03/28/2014	01/29/2018	01/30/2018	06/24/2010
			Field Sample ID	M314A1X-100624	M314A2X-100708	M314A3	M314A3X	M314A5	M314A5X	M314A6	M314A6X	M314B6	M314B6X	M315A1X-100624
			SDG	RFS49	RFS53	RFU32	RFU32	RFY73	RFY73	CS078	CS078	CS639	CS639	RFS49
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.69	0.16	1.55	1.51	8.4	8.26	8.08	8.02	-	-	0.4
DO	mg/L	N	NS	10.27	7.12	12.26	7.78	2.73	0.45	5.32	1.33	-	-	0.61
ORP	millivolts	N	NS	-59	-98	-70	-43	-170	-127	-172	-368	-	-	-341
pH	pH Units	N	NS	6.56	6.16	7.05	6.67	6.65	6.78	6.61	6.72	-	-	7.48
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	380000	-	388000	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	700U	-	700U	-	1700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	380000	-	388000	-	336000	-
Arsenic	ug/L	N	3	-	-	13.7J	-	26.6	-	20.7	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	8.0	-	5.2	-	6.1	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	120
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	53200	-	87000	-	65100	-	41600	-	-
Iron	ug/L	Y	300	-	-	-	-	54400	-	59000	-	32000	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	67J	-	40U	-	96J	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	12500U	-	12500U	-	4000U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	600U	-	2400U	-	700U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-315	MW-315	MW-315	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322
			Sample Date	07/08/2010	03/20/2012	03/21/2012	03/14/2012	03/15/2012	05/16/2012	05/17/2012	07/30/2012	07/31/2012	11/19/2012	02/19/2013	06/12/2013
			Field Sample ID	M315A2X-100708	M315A3	M315A3X	M322A1	M322A1X	M322A2	M322A2X	M322A3	M322A3X	M322A4	M322A5	M322A6
			SDG	RFS53	RFU27	RFU27	RFU22	RFU22	RFU65	RFU66	RFV20	RFV21	RFX09	RFX66	RFB02
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.14	2.42	2.62	1.48	0.64	1.79	2.35	1.8	5.09	5.76	14.78	10.51
DO	mg/L	N	NS	4.57	4.81	4.81	18.63	15.89	18.52	15.52	8.09	1384	12.72	6.46	2.12
ORP	millivolts	N	NS	-124	-46	-149	-60	-40	-56	-25	-128	-87	-101	-111	-109
pH	pH Units	N	NS	6.80	7.69	7.22	6.81	6.36	6.74	6.42	6.91	6.57	6.72	6.93	6.63
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	5.8J	-	23.1	-	16.8J	-	14.2J	-	11.7	14.4	13.3
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	84	-	2J	-	5U	9	0.7J	6	1J	5	2J	5J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	4060	-	55700	-	67300	-	91900	-	45100	80200	98400
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322	MW-322
			Sample Date	09/05/2013	11/07/2013	03/12/2014	05/19/2014	08/04/2014	10/29/2014	03/03/2015	06/08/2015	09/14/2015	10/13/2017	12/01/2017	12/01/2017	01/19/2018
			Field Sample ID	M322A7	M322A9	M322B1	M322B2	M322B3	M322B4	M322B5	M322B6	M322B7	M322C9	M322D1	M322D1X	M322D2
			SDG	CS005	CS041	CS073	CS100	CS135	CS178	CS205	CS248	CS283	CS617	CQ912	CQ912	CS632
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	11.56	13.19	12	12.32	9.83	12.29	11.12	-	12.84	11.18	14.7	14.7	13.12
DO	mg/L	N	NS	1.03	0.86	2.01	1.27	2.09	3.19	2.17	-	8.13	0.64	4.04	4.04	0.24
ORP	millivolts	N	NS	-272	-221	-104	-343	-396	-156	247	-	-92	52	-5.2	-5.2	97
pH	pH Units	N	NS	6.76	6.66	6.55	6.58	7.03	6.67	6.95	-	6.46	6.74	6.76	6.76	6.77
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	14.2	15.0	4.2	5.5	8.9	10.8	6.0	2.5	4.3	7.6	8.1	-	8.5
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	6.4	-	-
Benzene	ug/L	N	1	4J	6	3J	10U	3	3	0.5U	0.5U	0.5UJ	3U	-	0.5U	1U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	89700	80100	29100	49200	63800	68600	33700	32700	39900	64100	57900	-	64700
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	50900	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323
			Sample Date	03/14/2012	03/15/2012	05/16/2012	05/17/2012	07/30/2012	07/31/2012	11/20/2012	02/20/2013	06/12/2013	09/05/2013	11/05/2013	03/12/2014	08/05/2014
			Field Sample ID	M323A1	M323A1X	M323A2	M323A2X	M323A3	M323A3X	M323A4	M323A5	M323A6	M323A7	M323A9	M323B1	M323B3
			SDG	RFU22	RFU22	RFU65	RFU66	RFV20	RFV21	RFX10	RFX68	RFB02	CS005	CS039	CS073	CS136
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.1	0.61	2.24	2.15	3.43	4.81	5.95	5.85	5.21	5.83	6.21	5.61	5.79
DO	mg/L	N	NS	5.91	5.93	5.91	5.81	6.12	5.87	5.76	0.16	6.64	4.45	1.07	8.27	3.25
ORP	millivolts	N	NS	-58	-100	-5	-25	-115	-96	-67	-216	-7	-193	-281	-38	-370
pH	pH Units	N	NS	7.51	7.12	6.62	6.39	13.10	6.40	6.70	6.36	6.66	6.51	6.11	7.77	6.91
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	6.2J	-	5.1U	-	6.8U	-	2.2	1.4J	1.7J	2.8	1.8J	2.1	2.2
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	29500	-	29400	-	28600	-	7800	20200	23000	19700	27900	25300	24900
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-323	MW-324	MW-324
			Sample Date	10/29/2014	03/03/2015	06/08/2015	09/15/2015	09/15/2015	09/05/2017	09/05/2017	10/13/2017	12/01/2017	12/01/2017	01/19/2018	03/12/2012	03/13/2012
			Field Sample ID	M323B4	M323B5	M323B6	D0915151	M323B7	M323C8	M323C8X	M323C9	M323D1	M323D1X	M323D3	M324A1	M324A1X
			SDG	CS178	CS205	CS248	CS284	CS284	CQ755	CQ755	CS617	CQ912	CQ912	CS632	RFU17	RFU17
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.91	5.9	-	6.26	6.26	9.9	9.9	10.3	7.2	7.2	10.18	1.58	0.43
DO	mg/L	N	NS	5.07	12.11	-	9.92	9.92	2.46	2.46	0.59	149.94	149.94	0.61	17.09	11.41
ORP	millivolts	N	NS	-125	26	-	-26	-26	136.7	136.7	64	-15.9	-15.9	127	-62	-154
pH	pH Units	N	NS	7.12	8.09	-	6.28	6.28	6.49	6.49	6.58	7.21	7.21	6.80	6.57	7.35
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	5.7	12.3	13.8	3.4	4.6	0.92J	-	1.2J	0.98UJ	-	1.7J	36.8	-
Arsenic	ug/L	Y	3	-	-	-	-	-	0.97J	-	-	0.94UJ	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	42000	38900	42400	14600	14200	20900	-	22900	177J	-	26600	144000	-
Iron	ug/L	Y	300	-	-	-	-	-	21400	-	-	80.5U	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324
			Sample Date	05/17/2012	05/18/2012	07/30/2012	07/31/2012	11/21/2012	02/21/2013	06/17/2013	09/09/2013	11/05/2013	03/11/2014	05/21/2014	08/07/2014	10/28/2014
			Field Sample ID	M324A2	M324A2X	M324A3	M324A3X	M324A4	M324A5	M324A6	M324A7	M324A8	M324A9	M324B1	M324B2	M324B3
			SDG	RFU66	RFU67	RFV20	RFV21	RFX12	RFX72	RFB08	CS006	CS039	CS072	CS102	CS138	CS177
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1	1.66	2.46	4.91	6.06	9.94	7.38	6.28	7.42	6.44	4.51	2.78	9.03
DO	mg/L	N	NS	15.79	13.41	15.11	10.39	8.82	0.32	0.98	0.7	0.95	4.55	1.4	2.79	3.44
ORP	millivolts	N	NS	21	-111	0	-134	-92	-115	-44	-163	-253	-68	-384	-169	-77
pH	pH Units	N	NS	6.31	6.50	5.67	6.57	6.16	5.92	5.62	5.99	5.98	5.98	5.97	6.79	5.93
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	5.1U	-	11.8J	-	30.8	16.1	22.8	22.8	21.2	6.9	12.3	10	14.5
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	2J	4J	3J	2J	2J	1J	2J	1J	2J	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	292000	-	391000	-	375000	592000	483000	557000	499000	457000	403000	497000	478000
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-324	MW-324	MW-324	MW-324	MW-324	MW-324	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325
			Sample Date	03/10/2015	03/10/2015	05/28/2015	09/17/2015	10/11/2017	01/24/2018	03/12/2012	03/12/2012	03/13/2012	03/13/2012	05/17/2012	05/18/2012	07/26/2012
			Field Sample ID	D0310151	M324B4	M324B5	M324B6	M324C7	M324C8	D0312121	M325A1	D0313121	M325A1X	M325A2	M325A2X	M325A3
			SDG	CS207	CS207	CS243	CS286	CS615	CS636	RFU17	RFU17	RFU17	RFU17	RFU66	RFU67	RFV17
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.51	8.51	-	-	6.5	6.88	4.89	4.89	0.26	0.26	1.4	2.08	2.68
DO	mg/L	N	NS	3.8	3.8	-	3.81	5.03	0.27	13.15	13.15	15.24	15.24	13.79	11.31	12.79
ORP	millivolts	N	NS	-124	-124	-	-3	124	115	-131	-131	-117	-117	-56	-148	26
pH	pH Units	N	NS	6.22	6.22	-	6.08	5.75	5.79	7.70	7.70	6.33	6.33	7.26	7.52	12.37
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	8.6	10.1	9.4	11.2	18.4	11.9	7.6J	5.1U	-	-	5.1U	-	6.8U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	4J	4J	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	426000	434000	509000	568000	586000	494000	3100	3160	-	-	3260	-	3600
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325	MW-325
			Sample Date	07/27/2012	11/21/2012	02/21/2013	06/14/2013	09/09/2013	11/05/2013	11/05/2013	03/11/2014	05/21/2014	08/07/2014	10/28/2014	03/10/2015	05/28/2015
			Field Sample ID	M325A3X	M325A4	M325A5	M325A6	M325A7	D1105131	M325A8	M325A9	M325B1	M325B2	M325B3	M325B4	M325B5
			SDG	RFV18	RFX12	RFX72	RFB05	CS006	CS039	CS039	CS072	CS102	CS138	CS177	CS207	CS243
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.27	6.02	11.19	9.61	10.12	10.49	10.49	10.87	10.5	9.69	10.32	10.76	-
DO	mg/L	N	NS	12.1	10.57	0.11	1.68	0.75	1.24	1.24	6.73	4.58	3.51	3.78	1.23	-
ORP	millivolts	N	NS	-146	-215	-254	-114	-245	-271	-271	0.84	-119	-285	-121	-332	-
pH	pH Units	N	NS	12.25	7.73	7.53	7.30	7.53	7.43	7.43	7.54	7.47	7.80	7.22	7.37	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	1.5J	1.8J	1.7J	1.9J	1.2J	1.4J	1.7J	1.7J	2.3	3.3	18.6	1.1J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	3990	4440	4400	5360	4630	4380	6160	1530	7750	15000	120000	4460
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-325	MW-325	MW-325	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326
			Sample Date	09/17/2015	10/11/2017	01/24/2018	03/12/2012	03/13/2012	05/23/2012	05/24/2012	07/26/2012	07/27/2012	11/20/2012	02/20/2013	06/13/2013	09/05/2013
			Field Sample ID	M325B6	M325C6	M325C7	M326A1	M326A1X	M326A2	M326A2X	M326A3	M326A3X	M326A4	M326A5	M326A6	M326A7
			SDG	CS286	CS615	CS636	RFU17	RFU17	RFU72	RFU73	RFV17	RFV18	RFX10	RFX68	RFB04	CS005
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	10.02	10.48	2.64	0.45	1.52	1.69	2.52	0.4	5.44	10.15	10.21	14.47
DO	mg/L	N	NS	13.67	0.38	-0.17	25.06	21.08	23.86	21.25	24.7	21.11	20.93	0.32	2.64	0.71
ORP	millivolts	N	NS	-35	32	45	-22	-79	-24	-79	-59	-29	-23	-146	-64	-182
pH	pH Units	N	NS	7.45	7.43	7.47	6.27	6.09	6.06	6.25	10.46	11.84	5.82	6.04	6.53	6.21
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	3.9	1.0J	1.2J	36.1J	-	44.8J	-	34.0U	-	7.4	4.0	5.3	5.9
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	19500	6780	7570	288000	-	367000	-	343000	-	331000	347000	396000	371000
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-326	MW-327	MW-327	MW-327	MW-327
			Sample Date	11/06/2013	03/10/2014	08/05/2014	03/23/2015	05/29/2015	05/29/2015	09/18/2015	10/10/2017	01/23/2018	03/13/2012	03/14/2012	05/18/2012	05/18/2012
			Field Sample ID	M326A9	M326B1	M326B3	M326B5	D0529151	M326B6	M326B7	M326C8	M326C9	M327A1	M327A1X	M327A2	M327A2X
			SDG	CS040	CS071	CS136	CS211	CS244	CS244	CS287	CS614	CS635	RFU20	RFU20	RFU67	RFU67
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	11.84	12.58	11.22	7.3	-	-	15.25	6.08	6.52	3.76	1.9	4.16	4.16
DO	mg/L	N	NS	0.99	3.41	1.87	6.73	-	-	10.74	0.35	0.19	3.04	1.86	1.78	1.78
ORP	millivolts	N	NS	-233	-104	-113	-98	-	-	-47	123	138	44	31	106	106
pH	pH Units	N	NS	5.98	6.18	6.47	6.05	-	-	6.95	6.00	6.25	7.11	6.40	7.02	7.02
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	8.0	3.6	6.7	11.2	10.0	9.2	8.3	5.2	3.9	5.1U	-	5.1U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	363000	242000	318000	413000	287000	377000	298000	277000	211000	765	-	1280	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-327	MW-327	MW-327	MW-327	MW-327	MW-327	MW-327	MW-327	MW-327	MW-327	MW-327	MW-327	MW-328
			Sample Date	07/31/2012	08/01/2012	09/06/2013	11/11/2013	03/11/2014	08/07/2014	10/23/2014	03/23/2015	06/01/2015	09/15/2015	10/12/2017	01/22/2018	03/20/2012
			Field Sample ID	M327A3	M327A3X	M327A5	M327A9	M327B1	M327B3	M327B4	M327B5	M327B6	M327B7	M327C8	M327C9	M328A1
			SDG	RFV21	RFV23	CS005	CS043	CS072	CS138	CS176	CS211	CS245	CS284	CS616	CS634	RFU27
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.99	5.8	2.84	1.89	1.33	0.97	1.2	1.33	-	-	1.59	1.91	2.9
DO	mg/L	N	NS	1.74	1.85	0.63	1.1	6.6	5.98	8.64	9.11	-	7.46	0.67	0.37	3.48
ORP	millivolts	N	NS	-20	10	-370	-294	-24	-191	14	103	-	217	73	137	-29
pH	pH Units	N	NS	6.94	6.60	6.46	6.22	7.31	7.64	6.70	6.32	-	6.17	6.39	6.60	7.13
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	6.8U	-	0.52J	0.78U	0.78U	0.82U	1.3J	0.82U	0.82U	0.87J	0.72U	0.72U	8.1J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	952	-	1180	1280	1430	1260	2750	2780	1250	1320	1710	1720	13300
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328
			Sample Date	03/21/2012	05/23/2012	05/24/2012	07/25/2012	07/26/2012	04/25/2013	04/25/2013	06/17/2013	06/25/2013	09/10/2013	11/12/2013	03/14/2014	07/02/2014
			Field Sample ID	M328A1X	M328A2	M328A2X	M328A3	M328A3X	M328A4	M328A4X	M328A5	M328A5X	M328A6	M328A7	M328A8	M328B1X
			SDG	RFU27	RFU72	RFU73	RFV16	RFV17	RFZ12	RFZ12	RFB08	CP016	CS007	CS042	CS073	CP401
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.1	3.26	3.24	2.06	3.76	3.6	3.6	2.97	3.28	3.52	4.41	-	3.4
DO	mg/L	N	NS	3.23	3.06	3.17	3.51	3.42	4.59	4.59	2.67	0.18	0.64	0.9	-	0.12
ORP	millivolts	N	NS	-64	-47	-56	-105	-115	-66.3	-66.3	-62	-52	-209	-291	-	-21.2
pH	pH Units	N	NS	6.45	6.91	6.75	7.29	6.78	6.83	6.83	6.45	6.22	6.74	6.54	-	6.69
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	5.1U	-	6.8U	-	2.4	-	3.0	2.5	2.5	2.9	0.78U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	2.2	-	-	2.6	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	10700	-	12900	-	11700	-	18300	16700	17800	17700	4150	-
Iron	ug/L	Y	300	-	-	-	-	-	11200	-	-	16000	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	117000	-	117000	-	-	-	164000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-328	MW-333	MW-333
			Sample Date	08/01/2014	08/01/2014	08/08/2014	10/29/2014	01/16/2015	01/16/2015	03/02/2015	06/01/2015	09/16/2015	10/12/2017	01/25/2018	05/16/2012	05/17/2012
			Field Sample ID	M328B2	M328B2X	M328B3	M328B4	M328B5	M328B5X	M328B6	M328B7	M328B8	M328D1	M328D2	M333A1	M333A1X
			SDG	CP441	CP441	CS139	CS178	CP644	CP644	CS204	CS245	CS285	CS616	CS637	RFU65	RFU66
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.55	3.55	3.43	3.4	3.47	3.47	3.48	-	3.76	3.74	3.82	2.06	1.63
DO	mg/L	N	NS	4.65	4.65	2.69	6.06	0.89	0.89	4.13	-	7.31	0.32	0.68	8.67	5.66
ORP	millivolts	N	NS	-63.7	-63.7	-223	-147	-58	-58	509	-	-6	44	39	-69	-103
pH	pH Units	N	NS	6.21	6.21	7.32	6.94	6.96	6.96	7.09	-	7.29	6.91	7.49	6.96	6.69
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	1.9J	-	2.6	2.5	3.2	-	0.90J	1.7J	1.9J	1.2J	1.2J	18.2J	-
Arsenic	ug/L	Y	3	1.9J	-	-	-	2.4	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5UJ	0.5U	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	5J	0.9J	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	18200	-	18000	19100	19600	-	3380	15700	26000	14200	14400	41600	-
Iron	ug/L	Y	300	18300	-	-	-	17600	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	167000	-	-	-	197000	-	-	-	174000	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	600U	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-333	MW-333	MW-333	MW-333	MW-333	MW-333	MW-333	MW-333	MW-334	MW-334	MW-334	MW-334	MW-334
			Sample Date	07/24/2012	07/25/2012	03/10/2014	05/22/2014	08/06/2014	10/30/2014	03/09/2015	06/03/2015	05/17/2012	05/18/2012	07/31/2012	08/01/2012	03/10/2014
			Field Sample ID	M333A2	M333A2X	M333A3	M333A4	M333A5	M333A6	M333A7	M333A8	M334A1	M334A1X	M334A2	M334A2X	M334A3
			SDG	RFV15	RFV16	CS071	CS103	CS137	CS179	CS206	CS247	RFU66	RFU67	RFV21	RFV23	CS071
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.17	3.56	4.94	3.74	12.2	15.37	17.97	-	5.01	1.87	1.33	4.34	5.33
DO	mg/L	N	NS	10.09	5.73	7.91	1.45	1.67	2.09	2.98	-	5.65	3.88	5.57	4.93	6.2
ORP	millivolts	N	NS	-130	-168	-111	-185	-228	-185	-357	-	-68	-113	-148	-196	-131
pH	pH Units	N	NS	6.91	6.89	6.97	6.91	7.09	6.98	-	-	6.89	6.73	6.87	6.95	6.50
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	33.9	-	8.0	8.8	20.0	26.6	16.5	16.8	5.1U	-	12.6J	-	4.6
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.7J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	69	57	14	27	18
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	27600	-	31900	26100	38100	53400	59100	59300	103000	-	71900	-	76000
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-334	MW-334	MW-334	MW-334	MW-334	MW-334R	MW-334R	MW-334R	MW-336	MW-336	MW-336	MW-336	MW-336
			Sample Date	05/22/2014	08/06/2014	10/30/2014	03/09/2015	05/29/2015	10/10/2017	01/25/2018	01/25/2018	04/17/2013	04/17/2013	06/19/2013	06/19/2013	03/14/2014
			Field Sample ID	M334A4	M334A5	M334A6	M334B7	M334A8	M334RB8	D0125181	M334RB9	M336A1	M336A1X	M336A2	M336A2X	M336A3X
			SDG	CS103	CS137	CS179	CS206	CS244	CS614	CS637	CS637	RFY90	RFY90	CP008	CP008	CP278
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.78	6.35	7.14	7.78	-	-	3.75	3.75	6.8	6.8	6.59	6.59	6.57
DO	mg/L	N	NS	1.46	1.29	61.75	3.75	-	0.24	0.16	0.16	1.95	1.95	1.66	1.66	2.12
ORP	millivolts	N	NS	-383	-384	-193	-475	-	100	60	60	-64.7	-64.7	-88	-88	-35.5
pH	pH Units	N	NS	6.63	7.05	6.67	6.55	-	6.67	6.89	6.89	6.55	6.55	6.56	6.56	5.41
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	7.2	4.2	10.4	9.2	17.8	2.1	1.6J	1.7J	2.0	-	2.9	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	2.2	-	2.3	-	-
Benzene	ug/L	N	1	56	5	5	29	4	0.8J	5UJ	5UJ	-	240	-	110	62
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	82200	71600	63200	73800	48600	78200	82800	82000	17000	-	16800	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	17300	-	15900	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	6200	-	9700	25600000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-336	MW-336	MW-336	MW-336	MW-336	MW-336	MW-336	MW-336	MW-336	MW-336	MW-337	MW-337	MW-337
			Sample Date	06/26/2014	06/27/2014	07/29/2014	07/29/2014	01/20/2015	01/20/2015	07/06/2015	07/07/2015	11/27/2017	11/27/2017	04/16/2013	04/16/2013	06/24/2013
			Field Sample ID	M336A4	M336A4X	M336A5	M336A5X	M336A6	M336A6X	M336A7	M336A7X	M336B3	M336B3X	M337A1	M337A1X	M337A2
			SDG	CP389	CP391	CP431	CP431	CP648	CP648	CP768	CP770	CQ904	CQ904	RFY83	RFY83	CP014
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.9	6.96	6.57	6.57	6.89	6.89	-	7.7	6.7	6.7	4.4	4.4	4.21
DO	mg/L	N	NS	0.26	0.18	0.11	0.11	2.65	2.65	-	3.7	4.18	4.18	1.2	1.2	0.86
ORP	millivolts	N	NS	-138.1	-144.6	-84.2	-84.2	-126.8	-126.8	-	-50	-296.1	-296.1	-120.1	-120.1	-100
pH	pH Units	N	NS	6.23	6.27	6.21	6.21	6.69	6.69	-	7.02	7.81	7.81	6.30	6.30	6.47
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	67.0	-	46.2	-	21.4	-	15.6	-	3.7	-	4.8	-	6.3
Arsenic	ug/L	Y	3	57.5	-	41.4	-	14.4	-	13.0	-	2.7	-	4.5	-	6.0
Benzene	ug/L	N	1	-	120	-	170	-	130J	-	140	-	18	-	170	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	309000	-	260000	-	97100	-	45200	-	4530	-	67900	-	57300
Iron	ug/L	Y	300	293000	-	282000	-	84300	-	44200	-	3070	-	65200	-	56500
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	13400000	-	11100000	-	28000000	-	16000000	-	13300000	-	55500	-
Sulfide	ug/L	N	NS	-	-	-	-	-	5500	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-337	MW-337	MW-337	MW-337	MW-337	MW-337	MW-337	MW-337	MW-337	MW-337	MW-337	MW-337	MW-337
			Sample Date	06/24/2013	03/13/2014	03/13/2014	07/01/2014	07/01/2014	07/30/2014	07/30/2014	03/11/2015	03/11/2015	07/06/2015	07/06/2015	11/28/2017	11/28/2017
			Field Sample ID	M337A2X	M337A3	M337A3X	M337A4	M337A4X	M337A5	M337A5X	M337A6	M337A6X	M337A7	M337A7X	M337B3	M337B3X
			SDG	CP014	CP277	CP277	CP396	CP396	CP432	CP432	CP666	CP666	CP768	CP768	CQ906	CQ906
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.21	4.16	4.16	4.2	4.2	4.25	4.25	3.86	3.86	-	-	4.7	4.7
DO	mg/L	N	NS	0.86	0.61	0.61	0.1	0.1	0.14	0.14	1.05	1.05	-	-	2.88	2.88
ORP	millivolts	N	NS	-100	214.1	214.1	-89.3	-89.3	-157.3	-157.3	-199	-199	-	-	-73.2	-73.2
pH	pH Units	N	NS	6.47	12.68	12.68	7.38	7.38	7.59	7.59	8.17	8.17	-	-	7.39	7.39
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	953	-	16.1	-	23.6	-	15.3	-	18.6	-	8.2	-
Arsenic	ug/L	Y	3	-	927	-	16.3	-	16.4	-	11.9	-	16.3	-	7.9	-
Benzene	ug/L	N	1	260	-	300	-	74	-	36J	-	260	-	110	-	9
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	819	-	4520	-	18700	-	22200	-	23200	-	7750	-
Iron	ug/L	Y	300	-	444	-	11800	-	6300	-	21300	-	21700	-	6970	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1500U	-	120000	-	303000	-	1100000	-	57900	-	312000	-	527000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	5400U	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-338	MW-338	MW-338	MW-338	MW-338	MW-338	MW-338	MW-338	MW-338	MW-338	MW-338	MW-338	MW-338
			Sample Date	05/06/2013	05/06/2013	06/20/2013	06/20/2013	06/20/2013	06/20/2013	06/20/2013	03/11/2014	03/11/2014	06/30/2014	06/30/2014	07/31/2014	07/31/2014
			Field Sample ID	M338A1	M338A1X	D0620138	D0620138	M338A2	M338A2X	M338A2X	M338A3	M338A3X	M338A4	M338A4X	M338A5	M338A5X
			SDG	RFZ29	RFZ29	CP009	CP010	CP010	CP009	CP010	CP269	CP269	CP392	CP392	CP438	CP438
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.8	5.8	5.39	5.39	5.39	5.39	5.39	5.35	5.35	5.55	5.55	5.63	5.63
DO	mg/L	N	NS	8.09	8.09	0.09	0.09	0.09	0.09	0.09	0.66	0.66	0.01	0.01	0.28	0.28
ORP	millivolts	N	NS	-73.4	-73.4	-56.9	-56.9	-56.9	-56.9	-56.9	-168.5	-168.5	-150	-150	-429.6	-429.6
pH	pH Units	N	NS	6.28	6.28	6.30	6.30	6.30	6.30	6.30	7.45	7.45	7.25	7.25	9.65	9.65
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	36.8	-	-	25.4	27.3	-	-	34.2	-	282	-	1210	-
Arsenic	ug/L	Y	3	12.6	-	-	28.7	26.6	-	-	27.0	-	268	-	1200	-
Benzene	ug/L	N	1	-	550	520	-	-	590	-	-	190	-	110	-	83
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	59400	-	-	57000	56700	-	-	63500	-	17300	-	8780	-
Iron	ug/L	Y	300	40000	-	-	52900	54300	-	-	59600	-	16700	-	1140	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	31100	-	66800	-	-	67100	-	2300000	-	11300000	-	2550000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-338	MW-338	MW-338	MW-338	MW-338	MW-338	MW-339	MW-339	MW-339	MW-339	MW-339	MW-339	MW-339
			Sample Date	01/15/2015	01/15/2015	07/07/2015	07/07/2015	11/28/2017	11/28/2017	04/29/2013	04/29/2013	06/20/2013	06/20/2013	06/20/2013	07/03/2014	07/03/2014
			Field Sample ID	M338A6	M338A6X	M338A7	M338A7X	M338B3	M338B3X	M339A1	M339A1X	M339A2	M339A2X	M339A2X	M339A3	M339A3X
			SDG	CP638	CP638	CP770	CP770	CQ906	CQ906	RFZ20	RFZ20	CP010	CP009	CP010	CP404	CP404
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.41	5.41	5.61	5.61	5.6	5.6	5	5	4.07	4.07	4.07	4.11	4.11
DO	mg/L	N	NS	3.23	3.23	0	0	2.24	2.24	2.18	2.18	6.01	6.01	6.01	0.13	0.13
ORP	millivolts	N	NS	-315	-315	-222	-222	-36.7	-36.7	-81.7	-81.7	-89	-89	-89	-51.9	-51.9
pH	pH Units	N	NS	9.61	9.61	7.65	7.65	8.58	8.58	6.81	6.81	5.56	5.56	5.56	6.27	6.27
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	212	-	98.8	-	37	-	8.3	-	7.3	-	-	40.3	-
Arsenic	ug/L	Y	3	20.9	-	96.4	-	17.9	-	8.2	-	6.9	-	-	37.6	-
Benzene	ug/L	N	1	-	27	-	170	-	12	-	350	-	350	-	-	350
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	34500	-	12200	-	1350	-	20200	-	20700	-	-	237000	-
Iron	ug/L	Y	300	53800	-	11400	-	692	-	20600	-	20200	-	-	226000	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	5170000	-	229000	-	2700000	-	26800	-	-	1800J	-	199000
Sulfide	ug/L	N	NS	-	17100	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-339	MW-339	MW-339	MW-339	MW-339	MW-339	MW-340	MW-340	MW-340	MW-340	MW-340	MW-340	MW-340
			Sample Date	08/01/2014	08/01/2014	01/16/2015	01/16/2015	07/15/2015	07/15/2015	04/29/2013	04/29/2013	06/25/2013	06/25/2013	07/03/2014	07/03/2014	08/05/2014
			Field Sample ID	M339A4	M339A4X	M339A5	M339A5X	M339A6	M339A6X	M340A1	M340A1X	M340A2	M340A2X	M340A3	M340A3X	M340A4
			SDG	CP441	CP441	CP644	CP644	CP780	CP780	RFZ20	RFZ20	CP016	CP016	CP404	CP404	CP466
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.21	4.21	-	-	-	-	4.3	4.3	-	-	4.54	4.54	4.5
DO	mg/L	N	NS	0.07	0.07	-	-	-	-	9.55	9.55	1.04	1.04	0.11	0.11	0.22
ORP	millivolts	N	NS	-200.1	-200.1	-	-	-	-	-78	-78	-78	-78	-324.7	-324.7	-344.2
pH	pH Units	N	NS	6.72	6.72	-	-	-	-	6.40	6.40	6.67	6.67	9.65	9.65	9.18
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	128	-	16.3	-	35.9	-	3.7	-	5.8	-	1670	-	1440
Arsenic	ug/L	Y	3	116	-	15.7	-	31.0	-	4.6	-	5.1	-	1410	-	1380
Benzene	ug/L	N	1	-	320J	-	270	-	260	-	730	-	780	-	320	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	136000	-	9590	-	1660	-	30800	-	22600	-	21200	-	25500
Iron	ug/L	Y	300	131000	-	9380	-	1550	-	33500	-	22000	-	3450	-	4310
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	1370000	-	3250000	-	27700000	-	27400	-	6700	-	38000000	-
Sulfide	ug/L	N	NS	-	-	-	15800	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-340	MW-340	MW-340	MW-340	MW-340	MW-350	MW-350	MW-350	MW-350	MW-350	MW-350	MW-350	MW-350
			Sample Date	08/05/2014	01/16/2015	01/16/2015	07/16/2015	07/16/2015	04/17/2013	04/17/2013	06/24/2013	06/24/2013	03/11/2014	03/11/2014	06/27/2014	06/27/2014
			Field Sample ID	M340A4X	M340A5	M340A5X	M340A6	M340A6X	M350A1	M350A1X	M350A2	M350A2X	M350A3	M350A3X	M350A4	M350A4X
			SDG	CP466	CP644	CP644	CP783	CP783	RFY90	RFY90	CP014	CP014	CP269	CP269	CP391	CP391
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.5	-	-	-	-	4.2	4.2	4.04	4.04	4.06	4.06	4.2	4.2
DO	mg/L	N	NS	0.22	3.45	3.45	-	-	1.59	1.59	0.16	0.16	0.42	0.42	0.24	0.24
ORP	millivolts	N	NS	-344.2	-238.1	-238.1	-	-	16.8	16.8	-66	-66	-223.4	-223.4	-115.9	-115.9
pH	pH Units	N	NS	9.18	8.76	8.76	-	-	5.90	5.90	6.05	6.05	7.83	7.83	6.61	6.61
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	235	-	149	-	0.69J	-	0.49J	-	112	-	52.5	-
Arsenic	ug/L	Y	3	-	248	-	124	-	0.54J	-	0.54J	-	110	-	57.3	-
Benzene	ug/L	N	1	210J	-	640	-	660	-	100	-	120	-	76	-	56
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	5370	-	4210	-	15800	-	22700	-	19800	-	28300	-
Iron	ug/L	Y	300	-	4710	-	2770	-	14100	-	21800	-	19200	-	30500	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	37500000	-	1580000	-	10900000	-	15400	-	1500U	-	284000	-	574000
Sulfide	ug/L	N	NS	-	-	3500	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-350	MW-350	MW-350	MW-350	MW-350	MW-350	MW-350	MW-350	MW-351	MW-351	MW-351	MW-351	MW-351
			Sample Date	07/30/2014	07/30/2014	01/15/2015	01/15/2015	07/07/2015	07/07/2015	11/28/2017	11/28/2017	04/30/2013	04/30/2013	04/30/2013	04/30/2013	04/30/2013
			Field Sample ID	M350A5	M350A5X	M350A6	M350A6X	M350A7	M350A7X	M350B3	M350B3X	D0430138	D0430138	M351A1	M351A1	M351A1X
			SDG	CP432	CP432	CP638	CP638	CP770	CP770	CQ906	CQ906	RFZ23	RFZ24	RFZ23	RFZ24	RFZ24
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	FD	FD	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.23	4.23	4.2	4.2	-	-	4.05	4.05	4.8	4.8	4.8	4.8	4.8
DO	mg/L	N	NS	0.39	0.39	1.22	1.22	-	-	0.85	0.85	2.59	2.59	2.59	2.59	2.59
ORP	millivolts	N	NS	-113.5	-113.5	-179.2	-179.2	-	-	-271.1	-271.1	-2.8	-2.8	-2.8	-2.8	-2.8
pH	pH Units	N	NS	6.55	6.55	6.33	6.33	-	-	7.36	7.36	6.48	6.48	6.48	6.48	6.48
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	118	-	7.8	-	9.9	-	40.9	-	-	0.81J	-	0.62J	-
Arsenic	ug/L	Y	3	167	-	7.6	-	9.7	-	37.2	-	0.40U	-	0.42J	-	-
Benzene	ug/L	N	1	-	240J	-	170	-	93	-	180	-	230	-	-	240
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	68000	-	21800	-	17400	-	3840	-	-	16700	-	16900	-
Iron	ug/L	Y	300	93400	-	21900	-	17700	-	905	-	15200	-	15100	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	13400000	-	10900000	-	120000	-	97600	-	14500	-	-	11800
Sulfide	ug/L	N	NS	-	-	-	6100J	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351
			Sample Date	06/25/2013	06/25/2013	03/11/2014	03/11/2014	06/30/2014	06/30/2014	06/30/2014	08/04/2014	08/04/2014	08/04/2014	01/15/2015	01/15/2015	01/15/2015
			Field Sample ID	M351A2	M351A2X	M351A3	M351A3X	D0630148	M351A4	M351A4X	D0804148	M351A5	M351A5X	D0115158A	M351A6	M351A6X
			SDG	CP016	CP016	CP269	CP269	CP392	CP392	CP392	CP442	CP442	CP442	CP638	CP638	CP638
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	REG	FD	REG	REG	FD	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.46	4.46	4.52	4.52	9.69	9.69	9.69	4.64	4.64	4.64	4.62	4.62	4.62
DO	mg/L	N	NS	0.37	0.37	0.77	0.77	0.06	0.06	0.06	0.05	0.05	0.05	0.3	0.3	0.3
ORP	millivolts	N	NS	2.3	2.3	104.4	104.4	-281.8	-281.8	-281.8	-221.1	-221.1	-221.1	-161	-161	-161
pH	pH Units	N	NS	6.06	6.06	5.56	5.56	8.56	8.56	8.56	7.06	7.06	7.06	6.80	6.80	6.80
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	0.78J	-	191	-	-	320	-	149	145	-	12.7	12.9	-
Arsenic	ug/L	Y	3	0.42U	-	53.2	-	-	345J	-	148	139J	-	11.7	11.9J	-
Benzene	ug/L	N	1	-	420	-	610	380	-	300	120J	-	580J	270J	-	360J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	18100	-	139000	-	-	14800J	-	24300	27900	-	4160	4350	-
Iron	ug/L	Y	300	17400	-	103000	-	-	2240	-	17400	15200	-	3250	3330	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2300J	-	4520000	10300000J	-	19700000J+	23000000	-	21300000J+	2680000	-	2700000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	10600J	-	10600J-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-351	MW-351	MW-351	MW-351	MW-351	MW-351	MW-352	MW-352	MW-352	MW-352	MW-352	MW-352	MW-352
			Sample Date	07/07/2015	07/07/2015	07/07/2015	11/29/2017	11/29/2017	11/29/2017	11/08/2013	11/08/2013	03/17/2014	03/17/2014	06/05/2014	06/05/2014	10/16/2017
			Field Sample ID	D0707158	M351A7	M351A7X	D1129178	M351B3	M351B3X	M352A1	M352A1X	M352A2	M352A2X	M352A3	M352A3X	M352A4
			SDG	CP770	CP770	CP770	CQ908	CQ908	CQ908	CP214	CP214	CP279	CP279	CP352	CP352	CQ816
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	5.61	5.61	5.61	6.92	6.92	5.87	5.87	5.93	5.93	6.6
DO	mg/L	N	NS	-	-	-	20.03	20.03	20.03	0.22	0.22	2.51	2.51	1.32	1.32	2.5
ORP	millivolts	N	NS	-	-	-	-254.6	-254.6	-254.6	-103.7	-103.7	-42.4	-42.4	-496	-496	-72.4
pH	pH Units	N	NS	-	-	-	7.08	7.08	7.08	6.64	6.64	6.74	6.74	6.34	6.34	6.56
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	23.5	24.8	-	3.6J	2.6J	-	7.0	-	10.2	-	2.7	-	1.3J
Arsenic	ug/L	Y	3	26.1	28.0	-	1.5J	2.3J	-	3.7	-	1.7J	-	2.5	-	1.1J
Benzene	ug/L	N	1	140	-	150	380J	-	340J	-	410	-	410	-	390J	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	5930	6190	-	17700J	6380J	-	30000	-	17200	-	7550	-	7440
Iron	ug/L	Y	300	5280	5470	-	5410J	7840J	-	27600	-	11600	-	7340	-	7340
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	309000	-	265000	162000	-	95100	-	1500U	-	42800	-	40700	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	700J	-	1300J	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-352	MW-352	MW-352	MW-353	MW-353	MW-353	MW-353	MW-353	MW-353	MW-353	MW-353	MW-353	MW-353
			Sample Date	10/16/2017	12/07/2017	12/08/2017	06/04/2013	06/05/2013	09/11/2013	09/12/2013	11/14/2013	11/15/2013	01/15/2014	01/16/2014	04/07/2014	04/08/2014
			Field Sample ID	M352A4X	M352A5	M352A5X	M353A1	M353A1X	M353A2	M353A2X	M353A3	M353A3X	M353A4	M353A4X	M353A5	M353A5X
			SDG	CQ816	CQ919	CQ922	RFZ79	RFZ79	CS008	CS008	CS045	CS045	CS055	CS055	CS082	CS082
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.6	-	7.62	9.53	9.42	10.1	9.93	10.33	10.27	9.83	10.72	9.63	8.99
DO	mg/L	N	NS	2.5	-	1.24	1.22	0.35	0.79	0.09	2.2	0.97	1.4	1.36	3.71	2.91
ORP	millivolts	N	NS	-72.4	-	-150.6	-77	-141	-268	-257	-176	-257	5	34	-172	-262
pH	pH Units	N	NS	6.56	-	7.12	6.42	6.73	6.73	6.65	6.83	6.51	6.48	6.79	6.66	6.72
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	700U	-	700U	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	316000	-	327000	-	325000	-	323000	-	321000
Arsenic	ug/L	N	3	-	2	-	14.2	-	25.1	-	20.5	-	11.3	-	10.2	-
Arsenic	ug/L	Y	3	-	0.84J	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	150	-	250	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	7500	-	21800	-	30400	-	27100	-	18900	-	21500	-
Iron	ug/L	Y	300	-	7040	-	21300	-	35100	-	28800	-	18000	-	18300	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1800J	-	4000J	-	25000U	-	50000U	-	50000U	-	12500U	-	10000U
Sulfide	ug/L	N	NS	700U	-	8000J	-	600U	-	600U	-	1200U	-	1200U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-353	MW-353	MW-353	MW-353	MW-353	MW-353	MW-353	MW-353	MW-353	MW-353	MW-353	MW-353	MW-353
			Sample Date	07/02/2014	07/03/2014	11/19/2014	11/20/2014	02/10/2015	02/10/2015	02/11/2015	02/11/2015	08/10/2015	08/11/2015	10/15/2015	10/16/2015	09/14/2017
			Field Sample ID	M353A6	M353A6X	M353A7	M353A7X	D0210151	M353A8	D0211151	M353A8X	M353B1	M353B1X	M353B2	M353B2X	M353B7
			SDG	CS122	CS122	CS189	CS189	CS199	CS199	CS199	CS199	CS271	CS271	CS300	CS300	CS604
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.78	9.44	10.47	9.75	10.82	10.82	10.68	10.68	-	9.73	-	10.12	-
DO	mg/L	N	NS	0.45	0.24	3.89	2.88	4.14	4.14	1.48	1.48	-	2.66	-	5.53	-
ORP	millivolts	N	NS	-61	-43	-73	-238	-109	-109	-179	-179	-	-65	-	-77	-
pH	pH Units	N	NS	6.81	6.67	6.72	6.38	6.63	6.63	6.50	6.50	-	7.03	-	7.16	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	-	700U	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	322000	-	200000	-	-	255000	252000	-	269000	-	179000	-
Arsenic	ug/L	N	3	12.9	-	33.4	-	4.8	4.2	-	-	7.3	-	9.9	-	1.7J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	-	0.5U	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	23100	-	77300	-	31300	31400	-	-	57700	-	15200	-	63900
Iron	ug/L	Y	300	18600	-	53100	-	29200	29400	-	-	55800	-	12200	-	60200
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	-	40U	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	25000U	-	50000U	-	-	25000U	25400J	-	10000U	-	12500U	-
Sulfide	ug/L	N	NS	-	600U	-	680J	-	-	680U	680U	-	680U	-	730J	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-353	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354
			Sample Date	09/15/2017	06/04/2013	06/05/2013	09/11/2013	09/12/2013	11/14/2013	11/15/2013	01/15/2014	01/16/2014	04/07/2014	04/08/2014	07/02/2014	07/03/2014
			Field Sample ID	M353B7X	M354A1	M354A1X	M354A2	M354A2X	M354A3	M354A3X	M354A4	M354A4X	M354A5	M354A5X	M354A6	M354A6X
			SDG	CS604	RFZ79	RFZ79	CS008	CS008	CS045	CS045	CS055	CS055	CS082	CS082	CS122	CS122
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.85	9.6	9.72	9.86	10.13	10.2	10.27	9.36	10.22	9.03	9.08	9.02	8.96
DO	mg/L	N	NS	5.25	1.86	0.74	1.91	0.2	2.05	0.91	2.13	2.35	4.59	3.85	1.04	0.44
ORP	millivolts	N	NS	15	-41	-79	-520	-274	-201	-303	85	39	-63	-199	290	303
pH	pH Units	N	NS	6.47	5.20	6.12	6.54	6.18	6.82	6.14	6.20	6.41	5.67	5.59	6.05	5.84
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	1700U	-	700U	-	700U	-	700U	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	233000	-	87600	-	100000	-	98700	-	114000	-	54500	-	88200
Arsenic	ug/L	N	3	-	0.61J	-	0.42U	-	0.78U	-	1.4J	-	0.78U	-	0.82U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	1030	-	213	-	435	-	5820	-	1380	-	230	-
Iron	ug/L	Y	300	-	113J	-	43.0U	-	43.0U	-	43.0U	-	43.0U	-	33.4U	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	2800	-	76J
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	5000U	-	63800J	-	125000U	-	125000U	-	50000U	-	43600J	-	50000U
Sulfide	ug/L	N	NS	700U	-	1200U	-	600U	-	1200U	-	1400J	-	600U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-354	MW-355
			Sample Date	11/19/2014	11/20/2014	02/10/2015	02/11/2015	08/10/2015	08/11/2015	10/15/2015	10/16/2015	09/14/2017	09/14/2017	09/15/2017	09/15/2017	06/04/2013
			Field Sample ID	M354A7	M354A7X	M354A8	M354A8X	M354B1	M354B1X	M354B2	M354B2X	D0914171	M354B6	D0915171	M354B6X	M355A1
			SDG	CS189	CS189	CS199	CS199	CS271	CS271	CS300	CS300	CS604	CS604	CS604	CS604	RFZ79
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	FD	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.47	9.53	10.05	9.34	-	9.57	-	9.28	-	-	9.29	9.29	5.67
DO	mg/L	N	NS	2.33	1.9	2.42	-0.06	-	2.6	-	4.16	-	-	3.34	3.34	3.87
ORP	millivolts	N	NS	1	-389	120	-326	-	-58	-	-59	-	-	-24	-24	-74
pH	pH Units	N	NS	6.36	6.23	6.80	6.63	-	7.95	-	7.41	-	-	7.30	7.30	6.29
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	700U	-	-	1700U	1700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	95800	-	98100	-	99100	-	100000	-	-	91400	95100	-
Arsenic	ug/L	N	3	0.82U	-	0.82U	-	0.55J	-	1.0J	-	0.72U	0.72U	-	-	0.42U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	314	-	80.3J	-	54.4J	-	590	-	956	1080	-	-	581
Iron	ug/L	Y	300	33.4U	-	33.4U	-	33.3U	-	33.3U	-	80.5U	80.5U	-	-	33.3U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	-	40U	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	125000U	-	50900J	-	125000U	-	50000U	-	-	37500J	49400J	-
Sulfide	ug/L	N	NS	-	1200U	-	680U	-	1400U	-	1400U	-	-	700U	700U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355
			Sample Date	06/05/2013	09/11/2013	09/12/2013	09/19/2013	11/14/2013	11/14/2013	11/15/2013	11/15/2013	01/15/2014	01/16/2014	04/09/2014	04/10/2014	07/02/2014
			Field Sample ID	M355A1X	M355A2	M355A2X	M355A5X	D1114131	M355A3	D1115131	M355A3X	M355A4	M355A4X	M355A6	M355A6X	M355A7
			SDG	RFZ79	CS008	CS008	CP107	CS045	CS045	CS045	CS045	CS055	CS055	CS084	CS084	CS122
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.67	6.78	6.77	-	8.11	8.11	8.23	8.23	5.91	6.02	5.27	5.51	6.26
DO	mg/L	N	NS	2.51	2.42	0.84	-	2.23	2.23	0.94	0.94	5.47	5.51	5.9	5.28	1.91
ORP	millivolts	N	NS	-103	-324	-190	-	-187	-187	-195	-195	85	43	-175	-245	305
pH	pH Units	N	NS	6.65	6.59	6.58	-	6.72	6.72	6.51	6.51	7.09	7.10	6.88	6.76	6.62
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	-	-	700U	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	156000	-	330000	-	-	-	315000	316000	-	138000	-	132000	-
Arsenic	ug/L	N	3	-	1.3J	-	21.7	0.78U	0.78U	-	-	0.78U	-	0.78U	-	0.82U
Arsenic	ug/L	Y	3	-	-	-	20.7	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	-	-	0.5U	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	5240	-	84300	1520	1690	-	-	2020	-	347	-	33.4U
Iron	ug/L	Y	300	-	1880	-	83000	43.0U	43.0U	-	-	43.0U	-	43.0U	-	33.4U
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	1000	-	540	-	-	-	320	340	-	250	-	510	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	50000U	-	328000	-	-	-	214000J	125000U	-	40200	-	45600	-
Sulfide	ug/L	N	NS	600U	-	600U	-	-	-	1200J	1200U	-	600U	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-355	MW-356	MW-356
			Sample Date	07/03/2014	11/19/2014	11/20/2014	02/10/2015	02/11/2015	08/12/2015	08/13/2015	10/15/2015	10/16/2015	09/14/2017	09/15/2017	06/04/2013	06/05/2013
			Field Sample ID	M355A7X	M355A8	M355A8X	M355A9	M355A9X	M355B2	M355B2X	M355B3	M355B3X	M355B7	M355B7X	M356A1	M356A1X
			SDG	CS122	CS189	CS189	CS199	CS199	CS272	CS272	CS300	CS300	CS604	CS604	RFZ79	RFZ79
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.21	6.35	6.44	5.61	5.55	-	7.07	-	6.52	-	5.93	6.39	6.27
DO	mg/L	N	NS	2.81	4.89	5.39	5.43	1.6	-	3.45	-	4.19	-	7.73	3.87	2.17
ORP	millivolts	N	NS	280	-37	-92	140	-200	-	-81	-	-29	-	3	-36	-112
pH	pH Units	N	NS	6.59	6.94	6.88	7.00	7.22	-	7.49	-	6.70	-	7.12	5.90	6.46
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	700U	-	700U	-	700U	-	1700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	287000	-	217000	-	145000	-	215000	-	208000	-	211000	-	79600
Arsenic	ug/L	N	3	-	0.82U	-	0.82U	-	0.54U	-	0.54U	-	0.72U	-	2.9	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	33.4U	-	52.1J	-	66.2J	-	57.0J	-	80.5U	-	5300	-
Iron	ug/L	Y	300	-	33.4U	-	33.4U	-	46.9J	-	33.3U	-	80.5U	-	2290	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	980	-	540	-	390	-	1100	-	800	-	1800	-	160
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	368000	-	87400	-	88300	-	548000	-	122000	-	245000	-	46200
Sulfide	ug/L	N	NS	600U	-	600U	-	680U	-	680U	-	730J	-	700U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-356	MW-356	MW-356	MW-356	MW-356	MW-356	MW-356	MW-356	MW-356	MW-356	MW-356	MW-356	MW-356
			Sample Date	09/11/2013	09/12/2013	11/14/2013	11/15/2013	01/16/2014	01/17/2014	04/09/2014	04/10/2014	07/01/2014	07/01/2014	11/19/2014	11/20/2014	02/10/2015
			Field Sample ID	M356A2	M356A2X	M356A3	M356A3X	M356A4	M356A4X	M356A5	M356A5X	M356A6	M356A6X	M356A7	M356A7X	M356A8
			SDG	CS008	CS008	CS045	CS045	CS056	CS056	CS084	CS084	CS121	CS121	CS189	CS189	CS199
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.3	8.86	9.18	9.39	6.16	6.26	5.85	-	8.29	8.29	7.44	7.91	6.87
DO	mg/L	N	NS	0.86	0.08	2.15	0.83	3.93	2.71	2.25	-	1.65	1.65	3.11	1.93	4.07
ORP	millivolts	N	NS	-283	-294	-194	-288	71	47	-289	-	73	73	-111	-316	-56
pH	pH Units	N	NS	6.79	6.68	6.80	6.57	6.96	6.69	6.67	-	6.96	6.96	6.95	6.74	6.89
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	127000	-	153000	-	110000	-	73700	-	90700	-	124000	-
Arsenic	ug/L	N	3	4.0	-	3.9	-	1.0J	-	0.78U	-	1.0J	-	1.1J	-	0.82U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	13000	-	19000	-	4270	-	1840	-	9780	-	6810	-	558
Iron	ug/L	Y	300	10400	-	15200	-	1750	-	43.0U	-	8420	-	6480	-	476
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	41J	-	40U	-	250	-	160	-	59J	-	82J	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	12500U	-	12500U	-	7700	-	19500J	-	10000U	-	10000U	-
Sulfide	ug/L	N	NS	-	600U	-	620J	-	600U	-	600U	-	600U	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-356	MW-356	MW-356	MW-356	MW-356	MW-356	MW-356	MW-357	MW-357	MW-357	MW-357	MW-357	MW-357
			Sample Date	02/11/2015	08/12/2015	08/13/2015	10/15/2015	10/16/2015	09/18/2017	09/19/2017	06/05/2013	06/06/2013	09/12/2013	09/13/2013	11/18/2013	11/19/2013
			Field Sample ID	M356A8X	M356B1	M356B1X	M356B2	M356B2X	M356B6	M356B6X	M357A1	M357A1X	M357A2	M357A2X	M357A3	M357A3X
			SDG	CS199	CS272	CS272	CS300	CS300	CS605	CS605	RFZ87	RFZ87	CS010	CS010	CS046	CS046
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.88	-	8.7	-	8.47	-	8.54	9.44	9.56	9.9	10.36	10.6	10.19
DO	mg/L	N	NS	1.43	-	6.41	-	3.73	-	0.24	1.23	0.77	4.01	0.39	3.68	2
ORP	millivolts	N	NS	-251	-	-93	-	-56	-	-50	-93	-119	-159	-420	-89	-268
pH	pH Units	N	NS	7.07	-	7.12	-	6.66	-	7.04	6.83	6.66	6.92	6.81	6.27	6.76
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	700U	-	1700U	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	91600	-	112000	-	145000	-	147000	-	217000	-	268000	-	273000
Arsenic	ug/L	N	3	-	2.3	-	1.6J	-	1.8J	-	7.6	-	16.1	-	22.2	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	25000	-	16300	-	21900	-	35900	-	24000	-	24500	-
Iron	ug/L	Y	300	-	23200	-	17300	-	23300	-	35100	-	21800	-	25400	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	19000J	-	10000U	-	8700	-	10000U	-	12500U	-	12500U	-	12500U
Sulfide	ug/L	N	NS	680U	-	2700U	-	680U	-	700U	-	600U	-	600U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-357	MW-357	MW-357	MW-357	MW-357	MW-357	MW-357	MW-357	MW-357	MW-357	MW-357	MW-357	MW-357
			Sample Date	01/16/2014	01/17/2014	05/05/2014	05/06/2014	07/01/2014	07/01/2014	11/24/2014	11/25/2014	02/11/2015	02/12/2015	05/12/2015	05/13/2015	08/12/2015
			Field Sample ID	M357A4	M357A4X	M357A5	M357A5X	M357A6	M357A6X	M357A7	M357A7X	M357A8	M357A8X	M357A9	M357A9X	M357B1
			SDG	CS056	CS056	CS094	CS094	CS121	CS121	CS190	CS190	CS200	CS200	CS231	CS231	CS272
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.44	9.31	9.14	9.56	9.35	9.35	9.41	9.64	9.14	9.23	-	11.28	-
DO	mg/L	N	NS	1.43	0.9	4.01	3.25	0.59	0.59	2.5	0.42	2.65	0.4	-	6.38	-
ORP	millivolts	N	NS	-60	29	-187	-225	-10	-10	-169	-130	26	3.66	-	-53	-
pH	pH Units	N	NS	7.36	6.94	7.00	6.93	6.88	6.88	6.77	6.73	5.05	6.35	-	6.99	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	292000	-	272000	-	292000	-	221000	-	144000	-	296000	-
Arsenic	ug/L	N	3	6.9	-	6.6	-	9.3	-	7.8	-	9.0	-	5.3	-	10.3
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	23800	-	17200	-	16400	-	56200	-	14400	-	15200	-	13000
Iron	ug/L	Y	300	21200	-	16200	-	16300	-	49500	-	14700	-	14800	-	12600
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	40700	-	43900	-	5000U	-	181000	-	327000	-	11200	-
Sulfide	ug/L	N	NS	-	600U	-	600U	-	600U	-	700J	-	680U	-	680U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-357	MW-357	MW-357	MW-357	MW-357	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358
			Sample Date	08/13/2015	10/26/2015	10/27/2015	09/18/2017	09/19/2017	06/26/2013	06/27/2013	09/12/2013	09/13/2013	11/18/2013	11/19/2013	11/19/2013	01/28/2014
			Field Sample ID	M357B1X	M357B2	M357B2X	M357B6	M357B6X	M358A1	M358A1X	M358A2	M358A2X	M358A3	M358A3X	M358A3X	M358A4
			SDG	CS272	CS303	CS303	CS605	CS605	RFB22	RFB22	CS010	CS010	CS046	1501647	CS046	CS058
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	11.8	-	9.72	-	9.29	9.53	12.09	12.93	9.86	9.85	10.29	10.29	13.09
DO	mg/L	N	NS	1.21	-	2.74	-	0.99	4.48	2.06	5.03	4.1	5.43	1.96	1.96	4.49
ORP	millivolts	N	NS	-73	-	-49	-	13	-141	-148	-253	-220	-100	-168	-168	-57
pH	pH Units	N	NS	6.72	-	6.60	-	7.09	7.23	7.16	7.27	7.27	6.70	6.77	6.77	7.44
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	1700U	-	700U	-	700U	-	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	293000	-	312000	-	304000	-	241000	-	253000	-	-	302000	-
Arsenic	ug/L	N	3	-	9.9	-	7.7	-	12.0	-	20.3	-	21.5	-	-	10.8
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	16600	-	12900	-	3800	-	15700	-	18600	-	-	11100
Iron	ug/L	Y	300	-	17100	-	13000	-	1120	-	86.0J	-	12400	-	-	229
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	11000.00	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	530	-	460	-	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	5500	-	35200	-	2800J	-	73600	-	50000U	-	-	162000	-
Sulfide	ug/L	N	NS	11400J	-	680U	-	700U	-	600U	-	600U	-	-	620J	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358
			Sample Date	01/29/2014	05/05/2014	05/06/2014	07/02/2014	07/03/2014	08/28/2014	08/28/2014	11/24/2014	11/25/2014	02/11/2015	02/12/2015	05/12/2015	05/13/2015
			Field Sample ID	M358A4X	M358A5	M358A5X	M358A6	M358A6X	M358A8	M358A8X	M358A9	M358A9X	M358B1	M358B1X	M358B2	M358B2X
			SDG	CS058	CS094	CS094	CS122	CS122	CP488	CP488	CS190	CS190	CS200	CS200	CS231	CS231
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	10.96	7.87	7.8	8.59	7.36	-	-	8.02	7.61	7.3	7.03	-	9.78
DO	mg/L	N	NS	8.34	4.36	6.17	4.9	3.53	-	-	5.91	3.28	4.65	13.05	-	4.45
ORP	millivolts	N	NS	11	-121	-203	246	265	-	-	-126	-47	-67	122	-	-76
pH	pH Units	N	NS	7.30	7.50	7.28	7.29	6.99	-	-	7.41	7.32	7.27	5.79	-	7.11
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	700U	-	-	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	240000	-	219000	-	234000	-	576000	-	248000	-	216000	-	223000
Arsenic	ug/L	N	3	-	5.0	-	13.9	-	-	-	11.1	-	5.4	-	11.2	-
Arsenic	ug/L	Y	3	-	-	-	-	-	24.2	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	14J	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	1310	-	5740	-	-	-	2620	-	1680	-	4360	-
Iron	ug/L	Y	300	-	109J	-	33.4U	-	-	-	72.6J	-	171J	-	34.8J	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	860	-	1600	-	1300	-	-	-	1000	-	810	-	820
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	120000	-	89500J	-	85300	-	1500U	-	89700	-	108000	-	69200
Sulfide	ug/L	N	NS	600U	-	600U	-	600U	-	1400J	-	600U	-	680U	-	680U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-358	MW-358	MW-358	MW-358	MW-358	MW-358	MW-373	MW-373	MW-373	MW-373	MW-373	MW-373	MW-373
			Sample Date	08/12/2015	08/13/2015	10/26/2015	10/27/2015	09/18/2017	09/19/2017	01/08/2014	01/09/2014	04/14/2014	04/15/2014	07/09/2014	07/10/2014	11/24/2014
			Field Sample ID	M358B3	M358B3X	M358B4	M358B4X	M358B8	M358B8X	M373A1	M373A1X	M373A2	M373A2X	M373A3	M373A3X	M373A4
			SDG	CS272	CS272	CS303	CS303	CS605	CS605	CS050	CS050	CS086	CS086	CS123	CS123	CS190
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	12.97	-	9.87	-	7.38	9.32	8.58	9.98	8.9	7.95	8.63	8.78
DO	mg/L	N	NS	-	0.23	-	3.25	-	2.19	2.55	0.68	1.89	3.21	1.2	0.46	4.36
ORP	millivolts	N	NS	-	-13	-	-84	-	56	-223	-287	-165	-239	93	-13	-121
pH	pH Units	N	NS	-	6.68	-	7.02	-	7.40	8.63	6.43	6.52	6.48	6.58	6.38	6.40
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	1700U	-	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	235000	-	268000	-	221000	-	349000	-	323000	-	307000	-
Arsenic	ug/L	N	3	11.3	-	13.2	-	20.5	-	10	-	5.3	-	1.9J	-	0.82U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	3190	-	6530	-	6570	-	22500	-	30500	-	20900	-	18800
Iron	ug/L	Y	300	1810	-	67.0J	-	1730	-	21800	-	29500	-	20900	-	19300
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	930	-	650	-	2000	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	93100	-	125000	-	130000	-	11700	-	5000U	-	5000U	-
Sulfide	ug/L	N	NS	-	680U	-	680U	-	700U	-	600U	-	600U	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-373	MW-373	MW-373	MW-373	MW-373	MW-373	MW-373	MW-373	MW-373	MW-373	MW-373	MW-374	MW-374
			Sample Date	11/25/2014	04/09/2015	04/10/2015	06/11/2015	06/12/2015	08/24/2015	08/25/2015	10/28/2015	10/29/2015	09/19/2017	09/20/2017	04/10/2014	04/10/2014
			Field Sample ID	M373A4X	M373A6	M373A6X	M373A7	M373A7X	M373A8	M373A8X	M373A9	M373A9X	M373B4	M373B4X	M374A1	M374A1X
			SDG	CS190	CS218	CS218	CS251	CS251	CS277	CS277	CS305	CS305	CS606	CS606	CS085	CS085
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.02	7.34	8.91	-	8.91	-	9.14	-	9.02	-	8.75	2.86	2.86
DO	mg/L	N	NS	2.58	5.9	3.39	-	5.43	-	1.86	-	2.24	-	1.25	6.85	6.85
ORP	millivolts	N	NS	-75	-76	-28	-	-105	-	-71	-	85	-	3	-329	-329
pH	pH Units	N	NS	6.51	6.25	6.35	-	6.30	-	6.65	-	6.45	-	6.53	6.77	6.77
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	700U	-	700U	-	700U	-	1700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	313000	-	303000	-	326000	-	306000	-	288000	-	289000	-	402000
Arsenic	ug/L	N	3	-	1.2J	-	1.8J	-	0.54U	-	0.58J	-	0.72U	-	0.78U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	51
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	20800	-	18900	-	17900	-	16600	-	13700	-	2860	-
Iron	ug/L	Y	300	-	20400	-	18500	-	22000	-	16500	-	13500	-	2150	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	2500U	-	5000U	-	2500U	-	2900J	-	2500U	-	2500U	-	2500U
Sulfide	ug/L	N	NS	600U	-	680U	-	680U	-	680U	-	680U	-	700U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-374	MW-374	MW-374	MW-374	MW-374	MW-374	MW-374	MW-374	MW-374	MW-374	MW-374	MW-374	MW-374
			Sample Date	07/09/2014	07/09/2014	07/10/2014	07/10/2014	08/15/2014	08/15/2014	11/17/2014	11/18/2014	12/04/2014	12/04/2014	12/04/2014	04/09/2015	04/10/2015
			Field Sample ID	D0709141	M374A2	D0710141	M374A2X	M374A3	M374A3X	M374A5	M374A5X	M374A4	M374A4	M374A4X	M374A6	M374A6X
			SDG	CS123	CS123	CS123	CS123	CP463	CP463	CS187	CS187	CP613	CP614	CP613	CS218	CS218
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.85	2.85	2.94	2.94	3.18	3.18	2.62	2.76	3.02	3.02	3.02	2.97	2.82
DO	mg/L	N	NS	1.32	1.32	0.77	0.77	0	0	5.33	2.56	4.72	4.72	4.72	5.1	1.98
ORP	millivolts	N	NS	-45	-45	-75	-75	-199.1	-199.1	-137	-316	-153.1	-153.1	-153.1	-69	-99
pH	pH Units	N	NS	6.64	6.64	6.62	6.62	6.50	6.50	6.62	6.66	6.33	6.33	6.33	6.58	6.66
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	700U	-	-	-	700U	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	684000	654000	-	-	-	614000	-	-	-	-	427000
Arsenic	ug/L	N	3	2.5	2.3	-	-	0.82U	-	0.82U	-	0.82U	-	-	0.82U	-
Arsenic	ug/L	Y	3	-	-	-	-	0.82U	-	-	-	-	0.82U	-	-	-
Benzene	ug/L	N	1	-	-	95	96	-	54	-	32	-	-	41	-	32
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	4680	5060	-	-	2460	-	2460	-	2380	-	-	2520	-
Iron	ug/L	Y	300	2080	2020	-	-	2300	-	2120	-	-	2410	-	2590	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	40U	-	-	-	40U	-	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	25000U	25000U	-	1500U	-	2500U	-	-	2800J	-	5200J
Sulfide	ug/L	N	NS	-	-	2400U	2400U	-	1300J	-	680J	-	-	1200J	-	680U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-374	MW-374	MW-374	MW-374	MW-374	MW-374	MW-375	MW-375	MW-375	MW-375	MW-375	MW-375	MW-375
			Sample Date	06/11/2015	06/12/2015	08/24/2015	08/25/2015	02/05/2018	02/06/2018	01/10/2014	01/10/2014	04/10/2014	04/10/2014	07/09/2014	07/10/2014	11/17/2014
			Field Sample ID	M374A7	M374A7X	M374A8	M374A8X	M374B7	M374B7X	M375A1	M375A1X	M375A2	M375A2X	M375A3	M375A3X	D1117141
			SDG	CS251	CS251	CS277	CS277	CS641	CS641	CS051	CS051	CS085	CS085	CS123	CS123	CS187
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	2.93	-	3.33	-	-	1.44	1.44	2.3	2.3	2.33	2.43	2.09
DO	mg/L	N	NS	-	9.9	-	1.84	-	-	1.47	1.47	5.75	5.75	1.45	0.84	2.58
ORP	millivolts	N	NS	-	-117	-	-111	-	-	-219	-219	-323	-323	21	-44	-145
pH	pH Units	N	NS	-	6.63	-	6.81	-	-	10.41	10.41	6.94	6.94	6.61	6.64	6.74
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	1700U	-	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	633000	-	693000	-	346000	-	111000	-	164000	-	176000	-
Arsenic	ug/L	N	3	2.7J	-	0.54U	-	1.3J	-	1.2J	-	2.6	-	2.3	-	1.3J
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	44	-	55	-	3	-	1J	-	5	-	1	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	4800	-	2670	-	3360	-	7370	-	10300	-	5850	-	2380
Iron	ug/L	Y	300	2210J	-	2510	-	2690	-	6970	-	9270	-	5990	-	2150
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	73J	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	10000U	-	5000U	-	30700	-	46300	-	16100J	-	12500U	-
Sulfide	ug/L	N	NS	-	680U	-	780J	-	700U	-	4800U	-	2400U	-	880J	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-375	MW-375	MW-375	MW-375	MW-375	MW-375	MW-375	MW-375	MW-375	MW-375	MW-375	MW-376	MW-376
			Sample Date	11/17/2014	11/18/2014	11/18/2014	04/14/2015	04/15/2015	06/11/2015	06/12/2015	08/24/2015	08/25/2015	12/05/2017	12/06/2017	01/14/2014	01/15/2014
			Field Sample ID	M375A4	D1118141	M375A4X	M375A5	M375A5X	M375A6	M375A6X	M375A7	M375A7X	M375B3	M375B3X	M376A1	M376A1X
			SDG	CS187	CS187	CS187	CS220	CS220	CS251	CS251	CS277	CS277	CS624	CS624	CS054	CS054
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.09	2.17	2.17	2.43	2.47	-	2.42	-	2.67	-	2.44	3.02	5.21
DO	mg/L	N	NS	2.58	1.66	1.66	3.63	2.15	-	1.66	-	1.63	-	6.25	2.78	6.92
ORP	millivolts	N	NS	-145	-442	-442	-75	-102	-	-89	-	-110	-	11	58	11
pH	pH Units	N	NS	6.74	6.73	6.73	6.64	6.60	-	6.57	-	6.48	-	8.12	7.12	6.85
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	700U	-	700U	-	700U	-	700U	-	1700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	189000	190000	-	110000	-	169000	-	179000	-	142000	-	497000
Arsenic	ug/L	N	3	1.1J	-	-	2.7	-	1.2U	-	0.87J	-	1.1J	-	6.3	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	1	1	-	0.5U	-	0.6J	-	1	-	0.5U	-	24
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	2380	-	-	5670	-	6160	-	6150	-	4020	-	5550	-
Iron	ug/L	Y	300	2270	-	-	4900	-	5440	-	5960	-	3460	-	2090	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	25000U	25000U	-	25000U	-	10000U	-	10000U	-	3100J	-	25400
Sulfide	ug/L	N	NS	-	2600J	1200J	-	2700U	-	680U	-	680U	-	700U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376
			Sample Date	04/16/2014	04/17/2014	07/16/2014	07/16/2014	07/17/2014	07/17/2014	11/18/2014	11/19/2014	12/08/2014	12/08/2014	04/13/2015	04/14/2015	05/14/2015
			Field Sample ID	M376A2	M376A2X	D0716141	M376A3	D0717141	M376A3X	M376A5	M376A5X	M376A4	M376A4X	M376A6	M376A6X	M376A7
			SDG	CS087	CS087	CS126	CS126	CS126	CS126	CS188	CS188	CP620	CP620	CS219	CS219	CS232
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.17	4.42	3.16	3.16	4.19	4.19	3.07	4.06	3.49	3.49	3.83	4.02	-
DO	mg/L	N	NS	6.75	4.98	1.3	1.3	0.58	0.58	5.22	0.77	3.65	3.65	6.38	5	-
ORP	millivolts	N	NS	-152	-174	182	182	31	31	-229	-97	-40.9	-40.9	-91	-65	-
pH	pH Units	N	NS	6.77	6.77	6.64	6.64	6.85	6.85	7.06	6.74	6.92	6.92	6.66	6.72	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	-	700U	700U	-	700U	-	-	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	504000	-	-	475000	506000	-	467000	-	-	-	492000	-
Arsenic	ug/L	N	3	8.4	-	12.5	12.3	-	-	6.6	-	8.1	-	10.2	-	7.2
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	7.2	-	-	-	-
Benzene	ug/L	N	1	-	130	-	-	240	220	-	98	-	240	-	220	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	6680	-	5430	5700	-	-	3720	-	4180	-	7220	-	5160
Iron	ug/L	Y	300	5140	-	5330	5270	-	-	1350	-	3660	-	3280	-	4750
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	40U	40U	-	40U	-	-	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	22500	-	-	25800	25500	-	25800	-	49200	-	26000	-
Sulfide	ug/L	N	NS	-	600U	-	-	600U	600U	-	600U	-	600U	-	680U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-376	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377
			Sample Date	05/15/2015	08/31/2015	09/01/2015	10/14/2015	10/14/2015	11/02/2015	11/03/2015	01/14/2014	01/15/2014	04/16/2014	04/17/2014	07/16/2014	07/17/2014
			Field Sample ID	M376A7X	M376A8	M376A8X	M376A9	M376A9X	M376B1	M376B1X	M377A1	M377A1X	M377A2	M377A2X	M377A3	M377A3X
			SDG	CS232	CS281	CS281	CP881	CP881	CS307	CS307	CS054	CS054	CS087	CS087	CS126	CS126
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.84	-	6.05	-	-	-	3.17	4.82	5.79	5.86	6.13	5.78	5.17
DO	mg/L	N	NS	6.24	-	3.72	-	-	-	4.07	2.56	1.27	6.48	4.36	1.88	0.71
ORP	millivolts	N	NS	-103	-	1131	-	-	-	-97	63	-65	-190	-201	97	-7
pH	pH Units	N	NS	6.35	-	7.55	-	-	-	6.80	7.43	7.10	7.03	7.03	7.02	7.08
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	-	-	700U	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	522000	-	461000	-	-	-	478000	-	850000	-	945000	-	742000
Arsenic	ug/L	N	3	-	12.7	-	11.9	-	10.0	-	12.9	-	13.4	-	16.5	-
Arsenic	ug/L	Y	3	-	-	-	11.7	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	140	-	19	-	220	-	160	-	74	-	150	-	170
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	5490	-	5220	-	5400	-	18600	-	17800	-	15200	-
Iron	ug/L	Y	300	-	4930	-	4860	-	4450	-	15800	-	15500	-	14700	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	-	-	40U	-	45J	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	26000	-	23300	-	133000	-	50600	-	25000U	-	22600	-	33000
Sulfide	ug/L	N	NS	680U	-	680U	-	680U	-	680U	-	2200	-	600U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377	MW-377
			Sample Date	09/12/2014	09/12/2014	11/18/2014	11/19/2014	04/08/2015	04/09/2015	05/13/2015	05/14/2015	05/15/2015	08/31/2015	09/01/2015	10/14/2015	10/14/2015
			Field Sample ID	M377A4	M377A4X	M377A5	M377A5X	M377A6	M377A6X	M377A8X	M377A7	M377A7X	M377A9	M377A9X	M377B1	M377B1X
			SDG	CP506	CP506	CS188	CS188	CS217	CS217	CP711	CS232	CS232	CS281	CS281	CP881	CP881
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	5.68	5.88	5.99	6.02	10.89	-	6.22	-	6.48	7.15	7.15
DO	mg/L	N	NS	-	-	6.27	0.8	2	1.72	1.93	-	2.88	-	3.9	1.08	1.08
ORP	millivolts	N	NS	-	-	-173	-126	-142	-134	-161	-	-97	-	1163	-105.1	-105.1
pH	pH Units	N	NS	-	-	7.28	6.89	6.94	7.14	6.57	-	7.08	-	7.29	6.93	6.93
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	700U	-	700U	-	-	700U	-	700U	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	659000	-	826000	-	-	635000	-	318000	-	-
Arsenic	ug/L	N	3	6.5	-	13.8	-	11.0	-	-	10.7	-	6.2	-	10.1	-
Arsenic	ug/L	Y	3	6.4	-	-	-	-	-	-	-	-	-	-	8.9	-
Benzene	ug/L	N	1	-	9	-	67	-	330	120	-	190	-	15	-	37
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	4200	-	10500	-	13400	-	-	10100	-	4170	-	5130	-
Iron	ug/L	Y	300	3050	-	9750	-	13400	-	-	9350	-	3900	-	4980	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	40U	-	-	40U	-	40U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	46000	-	17800	-	25900	-	-	25000U	-	43500	-	28100
Sulfide	ug/L	N	NS	-	600U	-	600U	-	680U	-	-	680U	-	680U	-	680U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-377	MW-377	MW-378	MW-378	MW-378	MW-378	MW-378	MW-378	MW-378	MW-378	MW-378	MW-378	MW-378
			Sample Date	11/02/2015	11/03/2015	01/08/2014	01/09/2014	05/05/2014	05/06/2014	07/10/2014	07/11/2014	11/24/2014	11/25/2014	04/13/2015	04/14/2015	06/09/2015
			Field Sample ID	M377B2	M377B2X	M378A1	M378A1X	M378A2	M378A2X	M378A3	M378A3X	M378A4	M378A4X	M378A5	M378A5X	M378A6
			SDG	CS307	CS307	CS050	CS050	CS094	CS094	CS124	CS124	CS190	CS190	CS219	CS219	CS250
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	5.85	-	-	8.25	8.72	8.53	8.47	8.53	8.79	8.32	8.38	-
DO	mg/L	N	NS	-	8.48	-	-	4.55	2.34	1.02	0.67	3.31	2.39	0.36	0.39	-
ORP	millivolts	N	NS	-	-149	-	-	-170	-225	-5	-34	-144	-228	-175	-123	-
pH	pH Units	N	NS	-	6.79	-	-	6.51	6.37	6.44	6.21	6.48	6.47	6.47	6.39	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	550000	-	167000	-	179000	-	264000	-	409000	-	262000	-
Arsenic	ug/L	N	3	13.0	-	18.2	-	13.5	-	10.8	-	11.8	-	2.2	-	6.3
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	93	-	970	-	160	-	190	-	490	-	290	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	8350	-	62700	-	72000	-	85400	-	106000	-	7860	-	17500
Iron	ug/L	Y	300	7940	-	62500	-	70800	-	76000	-	102000	-	7440	-	20300
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40J	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	14500	-	198000J	-	67300	-	17300J	-	25000U	-	98900	-
Sulfide	ug/L	N	NS	-	680U	-	2400U	-	600U	-	600U	-	1800J	-	4800	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-378	MW-378	MW-378	MW-378	MW-378	MW-378	MW-378	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379
			Sample Date	06/10/2015	09/02/2015	09/03/2015	11/04/2015	11/05/2015	12/05/2017	12/06/2017	01/14/2014	01/15/2014	04/14/2014	04/15/2014	07/10/2014	07/11/2014
			Field Sample ID	M378A6X	M378A7	M378A7X	M378A8	M378A8X	M378B4	M378B4X	M379A1	M379A1X	M379A2	M379A2X	M379A3	M379A3X
			SDG	CS250	CS282	CS282	CS309	CS309	CS624	CS624	CS054	CS054	CS086	CS086	CS124	CS124
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.02	-	8.99	-	7.46	12.76	8.46	1.18	1.21	1.63	1.67	1.81	2.85
DO	mg/L	N	NS	-	-	1.73	-	4.24	2.77	4.06	10.55	6.01	1	1.69	1.22	0.85
ORP	millivolts	N	NS	-	-	934	-	-117	163	16	80	-24	-373	-286	-17	-3
pH	pH Units	N	NS	-	-	7.17	-	6.62	4.64	7.62	7.44	6.89	6.43	5.98	6.45	8.89
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	700U	-	1700U	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	543000	-	460000	-	393000	-	340000	-	16400	-	21900	-	42900
Arsenic	ug/L	N	3	-	15.5	-	3.4	-	6.4	-	0.96J	-	0.78U	-	3.4	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	350	-	270	-	270	-	130	-	0.5U	-	3	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	140000	-	8530	-	54100	-	11100	-	1280	-	8950	-
Iron	ug/L	Y	300	-	121000	-	9600	-	55300	-	201	-	463	-	7930	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	450	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	25000	-	10000U	-	95700	-	10000U	-	25400	-	60400	-	68500
Sulfide	ug/L	N	NS	2400	-	2500	-	680U	-	2300	-	600U	-	600U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-379	MW-380	MW-380	MW-380	MW-380	MW-380
			Sample Date	04/13/2015	04/14/2015	06/15/2015	06/16/2015	08/27/2015	08/27/2015	10/28/2015	10/29/2015	01/14/2014	01/15/2014	04/14/2014	04/15/2014	07/10/2014
			Field Sample ID	M379A4	M379A4X	M379A5	M379A5X	M379A6	M379A6X	M379A7	M379A7X	M380A1	M380A1X	M380A2	M380A2X	M380A3
			SDG	CS219	CS219	CS252	CS252	CS279	CS279	CS305	CS305	CS054	CS054	CS086	CS086	CS124
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	219	2.2	-	1.72	3.24	3.24	-	2.01	2.41	3.08	2.55	2.6	2.6
DO	mg/L	N	NS	2.33	0.54	-	9.26	10.97	10.97	-	2.98	2.86	1.6	1.94	1.29	0.62
ORP	millivolts	N	NS	41	5	-	-38	28	28	-	-15	93	6	-243	-387	-45
pH	pH Units	N	NS	6.03	6.03	-	6.01	7.73	7.73	-	6.18	6.49	7.01	7.11	6.84	6.69
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	27000	-	26900	-	45200	-	21100	-	70200	-	70500	-
Arsenic	ug/L	N	3	0.99J	-	0.82U	-	0.54U	-	2.6	-	10.6	-	11.6	-	29.4
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	1	-	0.5U	-	0.5U	-	0.5U	-	7	-	5	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	1160	-	1220	-	1080	-	32900	-	22400	-	19200	-	21600
Iron	ug/L	Y	300	427	-	1080	-	881	-	31900	-	18400	-	18900	-	20900
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	340	-	40U	-	370	-	65J	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	42500	-	53600	-	40400	-	46400	-	83000	-	69300	-
Sulfide	ug/L	N	NS	-	680U	-	680U	-	680U	-	680U	-	600U	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-380	MW-383	MW-383
			Sample Date	07/11/2014	04/13/2015	04/14/2015	06/09/2015	06/09/2015	06/10/2015	06/10/2015	08/27/2015	08/27/2015	10/28/2015	10/29/2015	04/14/2014	04/15/2014
			Field Sample ID	M380A3X	M380A4	M380A4X	D0609151	M380A5	D0610151	M380A5X	M380A6	M380A6X	M380A7	M380A7X	M383A1	M383A1X
			SDG	CS124	CS219	CS219	CS250	CS250	CS250	CS250	CS279	CS279	CS305	CS305	CS086	CS086
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.57	3.08	3.21	-	-	-	-	4.81	4.81	-	2.66	2.87	2.53
DO	mg/L	N	NS	0.74	5.4	0.31	-	-	-	-	7.24	7.24	-	0.69	2.57	1.52
ORP	millivolts	N	NS	-56	-167	-135	-	-	-	-	-92	-92	-	-167	-210	-421
pH	pH Units	N	NS	6.54	6.66	6.71	-	-	-	-	7.25	7.25	-	6.80	6.93	6.88
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	-	700U	700U	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	153000	-	80100	-	-	137000	138000	-	231000	-	144000	-	683000
Arsenic	ug/L	N	3	-	9.1	-	14.8	14.2	-	-	19.5	-	21.4	-	103	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	4	-	3	-	-	2	2	-	0.5U	-	4	-	1300
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	16600	-	18400	18200	-	-	12800	-	33200	-	18300	-
Iron	ug/L	Y	300	-	17000	-	17200	17400	-	-	12400	-	33400	-	17300	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	-	40U	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	39800	-	60100	-	-	27700	28100	-	76400	-	125000	-	5700
Sulfide	ug/L	N	NS	600U	-	680U	-	-	680U	680U	-	680U	-	680U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-383	MW-391
			Sample Date	07/10/2014	07/11/2014	04/08/2015	04/08/2015	04/09/2015	04/09/2015	06/15/2015	06/16/2015	08/27/2015	08/27/2015	10/28/2015	10/29/2015	06/25/2014
			Field Sample ID	M383A2	M383A2X	D0408151	M383A3	D0409151	M383A3X	M383A4	M383A4X	M383A5	M383A5X	M383A6	M383A6X	M391A1
			SDG	CS124	CS124	CS217	CS217	CS217	CS217	CS252	CS252	CS279	CS279	CS305	CS305	CP388
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.87	3.06	3.42	3.42	3.09	3.09	-	2.8	3.11	3.11	-	2.74	3.04
DO	mg/L	N	NS	1.36	0.62	3.61	3.61	3.43	3.43	-	2.83	1.29	1.29	-	1.75	1.39
ORP	millivolts	N	NS	-17	-24	-146	-146	-146	-146	-	-148	-10	-10	-	-175	-169.9
pH	pH Units	N	NS	6.80	6.72	6.68	6.68	6.95	6.95	-	6.62	7.36	7.36	-	6.73	7.09
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	-	700U	700U	-	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	659000	-	-	785000	746000	-	582000	-	722000	-	516000	-
Arsenic	ug/L	N	3	88.8	-	44.3	42.1	-	-	57.9	-	63.0	-	48.8	-	5.5
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	4.7
Benzene	ug/L	N	1	-	870	-	-	60	51	-	15	-	1	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	20600	-	21900	22200	-	-	26000	-	24900	-	24700	-	10800
Iron	ug/L	Y	300	21800	-	22700	22800	-	-	25900	-	25800	-	24900	-	9300
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	40U	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2500U	-	-	10000U	5000U	-	8300	-	10000U	-	13400J	-
Sulfide	ug/L	N	NS	-	600U	-	-	680U	680U	-	680U	-	680U	-	1700J	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-391	MW-391	MW-391	MW-391	MW-391	MW-391	MW-391	MW-391	MW-392	MW-392	MW-392	MW-392	MW-393
			Sample Date	06/25/2014	08/19/2014	08/19/2014	12/11/2014	12/11/2014	11/14/2017	04/30/2018	04/30/2018	08/19/2014	08/19/2014	12/11/2014	12/11/2014	09/12/2014
			Field Sample ID	M391A1X	M391A2	M391A2X	M391A3	M391A3X	M391A4X	D0430188	M391A5X	M392A1	M392A1X	M392A2	M392A2X	M393A1
			SDG	CP388	CP470	CP470	CP623	CP623	CQ885	CR043	CR043	CP470	CP470	CP623	CP623	CP506
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.04	3.3	3.3	2.63	2.63	0.52	-	-	4.75	4.75	4.3	4.3	5.5
DO	mg/L	N	NS	1.39	3.66	3.66	12.22	12.22	9	-	-	4.47	4.47	0.98	0.98	4.21
ORP	millivolts	N	NS	-169.9	159.1	159.1	-30.4	-30.4	-205.7	-	-	-163.1	-163.1	-132.1	-132.1	-33
pH	pH Units	N	NS	7.09	7.09	7.09	7.08	7.08	7.94	-	-	7.44	7.44	7.51	7.51	6.25
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	6.6	-	6.0	-	-	-	-	24.5	-	10.8	-	6.8
Arsenic	ug/L	Y	3	-	5.4	-	4.8	-	-	-	-	25.5	-	10.4	-	5.8
Benzene	ug/L	N	1	210	-	210	-	310	420	93J	69J	-	20	-	34	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	10100	-	8940	-	-	-	-	3080	-	2880	-	22500
Iron	ug/L	Y	300	-	7240	-	8630	-	-	-	-	1450	-	1950	-	21600
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	13000	-	11600	-	2000J	-	-	-	-	51100	-	11700	-
Sulfide	ug/L	N	NS	600U	-	640J	-	600U	-	-	-	-	600U	-	600U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-393	MW-393	MW-393	MW-393	MW-395	MW-395	MW-395	MW-395	MW-395	MW-395	MW-395	MW-395	MW-395
			Sample Date	09/12/2014	05/13/2015	10/14/2015	10/14/2015	05/05/2014	05/06/2014	07/09/2014	07/10/2014	11/17/2014	11/18/2014	04/09/2015	04/10/2015	06/11/2015
			Field Sample ID	M393A1X	M393A3X	M393A4	M393A4X	M395A1	M395A1X	M395A2	M395A2X	M395A3	M395A3X	M395A4	M395A4X	M395A5
			SDG	CP506	CP711	CP881	CP881	CS094	CS094	CS123	CS123	CS187	CS187	CS218	CS218	CS251
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.5	8.54	-	-	2.19	2.4	2.56	2.56	2.41	-	2.6	2.47	-
DO	mg/L	N	NS	4.21	10.62	-	-	8.24	-	2.43	-	2.11	-	3.46	-	-
ORP	millivolts	N	NS	-33	16	-	-	-209	-	77	-	-331	-	-99	-	-
pH	pH Units	N	NS	6.25	6.25	-	-	6.80	-	6.73	-	6.71	-	6.91	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	700U	-	700U	-	700U	-	700U	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	498000	-	561000	-	581000	-	509000	-
Arsenic	ug/L	N	3	-	-	2.9	-	14.2	-	11.6	-	16.9	-	10.3	-	10.2
Arsenic	ug/L	Y	3	-	-	3.2	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	-	0.5U	-	48	-	25	-	37	-	28	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	954	-	17600	-	16500	-	15200	-	16100	-	15000
Iron	ug/L	Y	300	-	-	898	-	16300	-	16200	-	11000	-	14400	-	14200
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	87600	-	-	93100	-	10000U	-	50000U	-	12500U	-	5000U	-
Sulfide	ug/L	N	NS	600U	-	-	680U	-	1100J	-	16700	-	8700J	-	4800J	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-395	MW-395	MW-395	MW-395	MW-395	MW-395	MW-395	MW-396	MW-396	MW-396	MW-396	MW-396	MW-396
			Sample Date	06/12/2015	08/24/2015	08/25/2015	12/05/2017	12/05/2017	12/06/2017	12/06/2017	03/18/2014	03/18/2014	03/18/2014	03/18/2014	03/18/2014	06/12/2014
			Field Sample ID	M395A5X	M395A6	M395A6X	D1205171	M395B2	D1206171	M395B2X	D0318148	D0318148	M396A1	M396A1	M396A1X	M396A2
			SDG	CS251	CS277	CS277	CS624	CS624	CS624	CS624	CP282	CP283	CP282	CP283	CP282	CP361
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	FD	REG	FD	REG	FD	FD	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.63	-	2.95	-	-	2.55	2.55	8.35	8.35	8.35	8.35	8.35	7.78
DO	mg/L	N	NS	-	-	0.02	-	-	5.98	5.98	1.63	1.63	1.63	1.63	1.63	0.14
ORP	millivolts	N	NS	-	-	-112	-	-	40	40	-85.5	-85.5	-85.5	-85.5	-85.5	-119.6
pH	pH Units	N	NS	-	-	6.91	-	-	7.41	7.41	7.04	7.04	7.04	7.04	7.04	6.64
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	700U	-	700U	-	-	1700U	1700U	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	515000	-	518000	-	-	532000	531000	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.7	-	10.2	10.0	-	-	43.4	-	36.7J	-	-	58.7
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	28.8	-	31.3J	-	55.7
Benzene	ug/L	N	1	24	-	8	-	-	11	11	120	-	-	-	140	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	11400	-	11100	11000	-	-	36900	-	33300	-	-	96400
Iron	ug/L	Y	300	-	10800	-	9560	9290	-	-	-	27900	-	29200	-	93100
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	-	40U	40U	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	5000U	-	12500U	-	-	25000U	25000U	271000	-	-	-	267000	-
Sulfide	ug/L	N	NS	5400U	-	4700J	-	-	700U	880J	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-396	MW-396	MW-396	MW-396	MW-396	MW-397	MW-397	MW-397	MW-397	MW-397	MW-397	MW-397	MW-397
			Sample Date	06/13/2014	10/17/2017	10/17/2017	12/11/2017	12/11/2017	03/18/2014	03/18/2014	03/18/2014	06/06/2014	06/13/2014	10/16/2017	10/16/2017	12/12/2017
			Field Sample ID	M396A2X	M396A3	M396A3X	M396A4	M396A4X	M397A1	M397A1	M397A1X	M397A2	M397A2X	M397A3	M397A3X	M397A4
			SDG	CP364	CQ820	CQ820	CQ923	CQ923	CP282	CP283	CP282	CP355	CP355	CQ816	CQ816	CQ928
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.61	4.1	4.1	4.2	4.2	4.66	4.66	4.66	4.84	-	2.04	2.04	4.6
DO	mg/L	N	NS	0.2	6.03	6.03	1.38	1.38	0.63	0.63	0.63	20.99	-	6.32	6.32	7
ORP	millivolts	N	NS	132.2	-120.4	-120.4	-112.6	-112.6	-54.3	-54.3	-54.3	-36.2	-	-49.9	-49.9	-69
pH	pH Units	N	NS	6.72	6.92	6.92	6.96	6.96	6.14	6.14	6.14	6.59	-	6.77	6.77	6.65
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	5.8	-	6.9	-	4.7	-	-	1.7J	-	0.9J	-	0.98J
Arsenic	ug/L	Y	3	-	5.1	-	6.7	-	-	1.9J	-	1.2J	-	1.2J	-	0.91J
Benzene	ug/L	N	1	150J	-	160	-	100	-	-	19	-	5	-	2	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	2650	-	35600	-	17400	-	-	16800	-	8450	-	7220
Iron	ug/L	Y	300	-	2090	-	35000	-	-	13200	-	15300	-	9900	-	6840
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	384000	-	13500J	-	369000J	-	-	5800	-	12400	-	2000J	-
Sulfide	ug/L	N	NS	900J	-	4600	-	3700	-	-	600U	-	600U	-	700U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-397	MW-398	MW-398	MW-398	MW-398	MW-398	MW-398	MW-398	MW-398	MW-398	MW-398	MW-398	MW-398
			Sample Date	12/12/2017	06/11/2014	06/11/2014	06/11/2014	06/11/2014	06/12/2014	06/12/2014	09/24/2014	09/24/2014	10/16/2017	10/16/2017	12/08/2017	12/08/2017
			Field Sample ID	M397A4X	D0611148	D0611148	M398A1	M398A1	D0612148	M398A1X	M398A2	M398A2X	M398A3	M398A3X	D1208178	M398A4
			SDG	CQ928	CP358	CP359	CP358	CP359	CP361	CP361	CP517	CP517	CQ816	CQ816	CQ922	CQ922
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	FD	REG	REG	FD	REG	REG	REG	REG	REG	FD	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.6	6.43	6.43	6.43	6.43	9.54	9.54	7.95	7.95	7.41	7.41	6.7	6.7
DO	mg/L	N	NS	7	0.18	0.18	0.18	0.18	0.31	0.31	0.91	0.91	3.37	3.37	1.64	1.64
ORP	millivolts	N	NS	-69	-92.9	-92.9	-92.9	-92.9	-79.8	-79.8	-80.1	-80.1	-99.1	-99.1	-127.8	-127.8
pH	pH Units	N	NS	6.65	6.73	6.73	6.73	6.73	6.72	6.72	6.95	6.95	6.76	6.76	0.18	0.18
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	15.5	-	18.1J	-	-	-	15.5	-	13.1	-	8.5	7.6
Arsenic	ug/L	Y	3	-	-	20.0	-	14.2	-	-	14.4	-	12.2	-	6.6	6.6
Benzene	ug/L	N	1	2	-	-	-	-	40J	43J	-	67	-	4	5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	38900	-	46700	-	-	-	51400	-	47200	-	41900	41900
Iron	ug/L	Y	300	-	-	47600	-	45600	-	-	49800	-	44800	-	40600	39800
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	2600J	-	-	-	-	24200	25700J+	-	25100	-	38200	18100	-
Sulfide	ug/L	N	NS	700U	-	-	-	-	600U	800J	-	17400J	-	2600	8000J	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-398	MW-402	MW-402	MW-402	MW-402	MW-402	MW-402	MW-402	MW-403	MW-403	MW-403	MW-403	MW-403
			Sample Date	12/08/2017	09/26/2014	10/28/2014	03/10/2015	05/28/2015	09/17/2015	10/11/2017	01/24/2018	06/06/2014	06/06/2014	07/28/2014	12/04/2014	12/04/2014
			Field Sample ID	M398A4X	M402A1	M402A2	M402A3	M402A4	M402A5	M402B7	M402B8	M403A1	M403A1X	M403A2X	M403A3	M403A3
			SDG	CQ922	CS162	CS177	CS207	CS243	CS286	CS615	CS636	CP355	CP355	CP426	CP613	CP614
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.7	5.34	8.11	7.62	-	9.69	3.11	5.91	8.4	8.4	6.56	8.79	8.79
DO	mg/L	N	NS	1.64	0.57	2.54	2.94	-	3.43	0.28	-0.2	24.66	24.66	8.99	7.96	7.96
ORP	millivolts	N	NS	-127.8	81	-152	-114	-	-52	74	70	-48.2	-48.2	174.6	-232	-232
pH	pH Units	N	NS	0.18	6.45	6.34	6.67	-	6.44	6.42	6.61	6.16	6.16	6.86	6.53	6.53
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	23.8	18.1	8.5	4.7	10.5	7.3	3.9	4.6	-	-	4.6	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	7.1	-	-	-	4.3
Benzene	ug/L	N	1	5U	0.5U	0.7J	0.5U	0.5U	3U	0.5U	0.5U	-	520	430	-	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	159000	262000	194000	353000	278000	287000	196000	5530	-	-	5190	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	6320	-	-	-	5050
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	19200	-	-	-	-	-	25000U	-	-	22200	-	-	-
Sulfide	ug/L	N	NS	6400J	-	-	-	-	-	-	-	-	600U	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-403	MW-403	MW-403	MW-403	MW-403	MW-404	MW-404	MW-404	MW-404	MW-405	MW-405	MW-405	MW-405
			Sample Date	12/04/2014	10/16/2017	10/16/2017	12/07/2017	12/08/2017	06/23/2014	06/24/2014	08/06/2014	08/13/2014	08/15/2014	08/15/2014	12/10/2014	12/10/2014
			Field Sample ID	M403A3X	M403A4	M403A4X	M403A5	M403A5X	M404A1	M404A1X	M404A2	M404A2X	M405A1	M405A1X	M405A2	M405A2X
			SDG	CP613	CQ816	CQ816	CQ919	CQ922	CP380	CP384	CP448	CP459	CP463	CP463	CP622	CP622
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.79	5.31	5.31	-	7	10.57	-	-	-	3.65	3.65	2.96	2.96
DO	mg/L	N	NS	7.96	4.27	4.27	-	0.13	0.96	-	-	-	1.07	1.07	5.38	5.38
ORP	millivolts	N	NS	-232	-201.2	-201.2	-	-289.9	-18.7	-	-	-	-78.7	-78.7	-30.8	-30.8
pH	pH Units	N	NS	6.53	6.73	6.73	-	6.76	5.05	-	-	-	6.40	6.40	6.84	6.84
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	5.7	-	5.1	-	15.0	-	102	-	4.2	-	1.0J	-
Arsenic	ug/L	Y	3	-	4.1	-	1.7J	-	13.3	-	98.0	-	3.5	-	0.90J	-
Benzene	ug/L	N	1	840	-	65	-	38J	-	54	-	13J	-	1	-	0.6J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	5770	-	6850	-	41900	-	118000	-	11600	-	6120	-
Iron	ug/L	Y	300	-	2920	-	4150	-	36800	-	113000	-	9460	-	5860	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	46800	-	24500	-	19200	-	462000	-	324000	-	44400	-	45700
Sulfide	ug/L	N	NS	-	-	6100	-	7000	-	2400U	-	600U	-	4800U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-405	MW-405	MW-405	MW-405	MW-405	MW-406	MW-406	MW-406	MW-406	MW-406	MW-406	MW-406	MW-406
			Sample Date	12/12/2014	11/21/2017	11/21/2017	02/13/2018	02/13/2018	06/20/2014	06/20/2014	06/20/2014	06/20/2014	06/20/2014	08/12/2014	08/12/2014	08/13/2014
			Field Sample ID	M405A3X	M405A5	M405A5X	M405A6	M405A6X	D0620148	D0620148	M406A1	M406A1	M406A1X	D0812148	M406A2	D0813148
			SDG	CS192	CQ899	CQ899	CQ973	CQ973	CP376	CP377	CP376	CP377	CP376	CP458	CP458	CP459
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	FD	FD	REG	REG	REG	FD	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.13	-	-	-	-	9.4	9.4	9.4	9.4	9.4	8.25	8.25	8.72
DO	mg/L	N	NS	-0.24	-	-	-	-	0.42	0.42	0.42	0.42	0.42	0.59	0.59	0.76
ORP	millivolts	N	NS	-177	-	-	-	-	-50.7	-50.7	-50.7	-50.7	-50.7	-33.3	-33.3	-40.4
pH	pH Units	N	NS	7.13	-	-	-	-	6.45	6.45	6.45	6.45	6.45	6.32	6.32	6.35
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	1J	-	2.1	-	7.8	-	7.5	-	-	7.8	7.0	-
Arsenic	ug/L	Y	3	-	-	-	1.9J	-	-	7.1	-	7.6	-	7.2	7.2	-
Benzene	ug/L	N	1	0.5U	-	1	-	1U	150	-	-	-	130	-	-	48J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	13000	-	17600	-	16900	-	16300	-	-	11300	12000	-
Iron	ug/L	Y	300	-	-	-	17500	-	-	12700	-	15600	-	11000	10500	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	3600J	-	-	-	3600J	-	-	1600J
Sulfide	ug/L	N	NS	-	-	-	-	-	2400U	-	-	-	2400U	-	-	1200U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-406	MW-406	MW-406	MW-406	MW-406	MW-406	MW-406	MW-406	MW-406	MW-407	MW-407	MW-407	MW-407
			Sample Date	08/13/2014	12/03/2014	03/11/2015	09/13/2017	09/13/2017	11/30/2017	11/30/2017	03/13/2018	03/13/2018	06/24/2014	06/24/2014	08/06/2014	08/13/2014
			Field Sample ID	M406A2X	M406A3X	M406A4X	M406A6	M406A6X	M406A7	M406A7X	D0313188	M406A8X	M407A1	M407A1X	M407A2	M407A2X
			SDG	CP459	CP611	CP666	CQ768	CQ768	CQ910	CQ910	CQ999	CQ999	CP384	CP384	CP448	CP459
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	8.72	9	5.32	9.1	9.1	10.52	10.52	-	-	-	-	-	-
DO	mg/L	N	NS	0.76	0.78	16.24	3.12	3.12	3.53	3.53	-	-	-	-	-	-
ORP	millivolts	N	NS	-40.4	-83.9	-58	-40.2	-40.2	-58.3	-58.3	-	-	-	-	-	-
pH	pH Units	N	NS	6.35	6.46	6.44	6.34	6.34	6.60	6.60	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	9	-	7.5	-	-	-	45.7	-	29.9	-
Arsenic	ug/L	Y	3	-	-	-	7.9	-	5.3	-	-	-	38.4	-	28.5	-
Benzene	ug/L	N	1	35J	100	16	-	62	-	110	110	110	-	35	-	35J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	7350	-	12200	-	-	-	57300	-	58500	-
Iron	ug/L	Y	300	-	-	-	6970	-	9940	-	-	-	44300	-	55900	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1700J	-	-	-	-	-	-	-	-	-	73700	-	20600
Sulfide	ug/L	N	NS	1200U	-	-	-	-	-	-	-	-	-	-	-	2400U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-407	MW-407	MW-407	MW-407	MW-415	MW-415	MW-415	MW-422	MW-423	MW-424	MW-424	MW-433	MW-433
			Sample Date	09/08/2017	12/04/2017	12/05/2017	03/13/2018	05/29/2015	08/26/2015	08/26/2015	10/12/2015	10/12/2015	09/15/2015	09/15/2015	08/25/2015	08/25/2015
			Field Sample ID	M407A4X	M407A5	M407A5X	M407A6X	M415A1X	M415A2	M415A2X	M422A1X	M423A1X	M424A1	M424A1X	D0825158	M433A1
			SDG	CQ761	CQ913	CQ914	CQ999	CP724	CP828	CP828	CP872	CP872	CP839	CP839	CP822	CP822
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.4	-	-	-	4.8	4.39	4.39	5.8	2.7	4.97	4.97	-	-
DO	mg/L	N	NS	0.64	-	-	-	3.89	0	0	0.03	0.01	1.34	1.34	-	-
ORP	millivolts	N	NS	-101.7	-	-	-	-260	-284.2	-284.2	-117.1	-120.9	-63.4	-63.4	-	-
pH	pH Units	N	NS	6.63	-	-	-	6.40	7.02	7.02	7.00	7.18	6.29	6.29	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	5.9	-	-	-	2.4	-	-	-	6.2	-	35.7	37.5
Arsenic	ug/L	Y	3	-	2.2	-	-	-	1.7J	-	-	-	4.7	-	38.7J-	39.4J-
Benzene	ug/L	N	1	30	-	26	9	64	-	86	27	1	-	84	-	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	33500	-	-	-	471	-	-	-	29300	-	40100	43900
Iron	ug/L	Y	300	-	20300	-	-	-	44UJ	-	-	-	28800	-	37100	35900
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	823000	-	415000	-	-	-	7400	-	-
Sulfide	ug/L	N	NS	-	-	-	-	9600J	-	8200	-	-	-	680U	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-433	MW-433	MW-433	MW-433	MW-474	MW-474	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
			Sample Date	08/26/2015	08/26/2015	10/13/2015	10/13/2015	10/10/2017	01/25/2018	06/29/1995	03/28/2002	03/28/2002	10/24/2002	10/25/2002	02/11/2003	02/12/2003
			Field Sample ID	D0826158	M433A1X	M433A2	M433A2X	M474A9	M474B1	MW-0005-A	M005A1	M005A1	M005A2X	M005A2Y	M005A3X	M005A3Y
			SDG	CP828	CP828	CP880	CP880	CS614	CS637	PROJB506361	HPA07	RFE35	RFE35	RFE35	RFE64	RFE64
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.92	6.92	-	-	-	5.18	-	-	-	-	-	-	-
DO	mg/L	N	NS	0.32	0.32	-	-	0.15	0.46	-	-	-	2.74	-	3.05	-
ORP	millivolts	N	NS	-23.9	-23.9	-	-	137	46	-	-	-	324	-	-204	-
pH	pH Units	N	NS	6.13	6.13	-	-	6.48	7.20	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	41400	-	61500
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410U	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	41400	-	61500
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	4.8	-	1.5J	3.3	-	-	-	4.9U	-	4.9U	-
Arsenic	ug/L	Y	3	-	-	5.1	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	3J	2J	-	1	6	5U	5.0U	-	-	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	33200	-	39100	42600	-	-	-	3260	-	2100	-
Iron	ug/L	Y	300	-	-	32500	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	400U	-	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	226000	267000	-	1240000	-	-	-	-	51000	-	-	-	38700
Sulfide	ug/L	N	NS	680U	680U	-	680U	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
			Sample Date	09/02/2003	03/12/2004	09/29/2004	09/30/2004	06/13/2005	06/14/2005	11/10/2005	11/11/2005	06/12/2006	06/13/2006	11/27/2006	11/28/2006	06/12/2007
			Field Sample ID	M005A4	M005A5	M005A6	M005A6X	M005A7	M005A7X	M005A8	M005A8X	M005A9	M005A9X	M005B1	M005B1X	M005B2
			SDG	RFE85	RFE99	RFF27	RFF27	947365	947365	967213	967213	993388	993388	1015744	1015744	1042260
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	3.01	-	3.61	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	0.3	-	0.51	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	108	-	-63	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	5.69	-	5.86	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	73100	-	36800	-	70900	-	46500	-	62100	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	410U	-	410U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	4.9U	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	-	-	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	5580	19900	10800	-	11400	-	4180	-	10500J	-	11500	-	17200
Iron	ug/L	Y	300	-	7780	846	-	9170	-	773	-	9570J	-	9450	-	15300
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	510	-	-	40U	-	400U	-	120	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	32700	-	44700	-	38100	-	25500	-	41200	-
Sulfide	ug/L	N	NS	-	-	-	530U	-	530U	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	NF-10
			Sample Date	06/12/2007	08/11/2008	08/12/2008	07/08/2009	07/09/2009	06/28/2010	06/29/2010	07/26/2011	02/28/2012	04/05/2013	05/30/2014	04/28/1998
			Field Sample ID	M005B2X	M005B3	M005B3X	M005B4	M005B4X	M005B5-100628	M005B5X-100629	M005B6X	M005B7X	M005B8X	M005B9X	N010PS1
			SDG	1042260	1105054	1105054	1152857	1152857	RFS51	RFS51	RFT46	RFU13	RFY57	CS107	E33767
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	3.59	-	3.34	-	2.9	0.54	1.42	5	3.81	3.04	-
DO	mg/L	N	NS	-	0.27	-	0	-	0	4.37	3.79	3.79	0.91	2.47	-
ORP	millivolts	N	NS	-	-71	-	-30	-	-79	111	70	161	-191	-273	-
pH	pH Units	N	NS	-	5.89	-	5.88	-	7.78	6.43	5.97	6.32	6.68	6.25	-
Alkalinity to pH 4.5	ug/L	N	NS	57900	-	81000	-	41400	-	74500	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	5.0U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	284
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	13000	-	14800	-	21200	-	-	-	-	-	-
Iron	ug/L	Y	300	-	11800	-	14800	-	19100	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	100	-	40U	-	40U	-	40U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	26900	-	21000	-	21400	-	51700	-	-	-	-	-
Sulfide	ug/L	N	NS	530U	-	530U	-	530U	-	530U	-	-	-	-	-

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10
			Sample Date	04/28/1998	04/29/1998	04/30/1998	04/30/1998	05/01/1998	10/04/2001	01/23/2002	03/28/2002	04/04/2002	07/16/2002	09/25/2002	09/25/2002	10/01/2002
			Field Sample ID	N010PS5	N010PS2	N010PS3	N010PS6	N010PS4	NF10401	NF10102	NF10A1	NF10202	NF10302	NF10PS3	NF10PSL	NF10402Y
			SDG	E33767	E33866	E33866	E33866	E33923		269011	HPA07	279120	293320	RFE25	RFE25	GWC01
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	5.0U	5.0U	-	5.0U	-	8.00	-	-	5.0U	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	495	156	382	462	230	100	27.70	-	443	808	670	490	650
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	400U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10
			Sample Date	01/06/2003	01/06/2003	04/25/2003	07/08/2003	10/13/2003	03/02/2004	03/03/2004	05/04/2004	08/04/2004	08/04/2004	12/15/2004	12/16/2004	12/16/2004
			Field Sample ID	NF10103X	NF10103Y	NF10203Y	NF10303	NF10403A	NF10104A	NF10104B	NF10204A	NF10304	NF10304	NF10404	NF10404X	NF10404X
			SDG	GWC02	GWC02	GWC04	GWC06	GWC08	RFE98	RFE98	GWC10	GWC14	RFF18	NFE16	GWC17	NFE16
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	1.03	0.6	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-152	30	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	241000	-	-	-	-	-	-	244000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	410U	-	-	-	-	-	-	410U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	4.9U	-	4.9U	-	-	4.9U	-	4.7U	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	680	-	790	580	480	520	-	570	-	560	-	450	440
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	9460	-	-	-	4420	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	5930	-	-	-	204	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	40U	40U	-	40U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	1500U	-	-	-	-	-	-	14500
Sulfide	ug/L	N	NS	-	-	-	-	-	530U	-	-	-	-	-	-	530U

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10
			Sample Date	02/02/2005	02/03/2005	05/03/2005	05/04/2005	08/08/2005	08/09/2005	10/03/2005	10/04/2005	01/12/2006	01/12/2006	04/19/2006	04/20/2006	08/10/2006
			Field Sample ID	NF10105	NF10105X	NF10205	NF10205X	NF10305	NF10305X	NF10405	NF10405X	NF10106	NF10106X	NF10206	NF10206X	NF10306
			SDG	GWC18	GWC18	942145	942145	954690	954690	961782	961782	974195	974195	986437	986437	1001382
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	3.78	-	-	-	5.18	-	3.4	3.4	3.96	-	-
DO	mg/L	N	NS	-	-	2.51	-	2.26	-	2.54	-	0.63	0.63	0.36	-	-
ORP	millivolts	N	NS	-	-	-197	-	-212	-	-170	-	-184	-184	-220	-	-
pH	pH Units	N	NS	-	-	7.09	-	7.26	-	6.50	-	7.38	7.38	7.23	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	248000	-	-	-	253000	-	-	-	232000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	410U	-	-	-	460U	-	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.7U	-	-	-	9.3U	-	-	-	9.3U	-	-	-	10U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	48	-	490	-	640	-	430	-	470	-	480	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	11500	-	-	-	4280	-	-	-	7040	-	-
Iron	ug/L	Y	300	-	-	10600	-	-	-	1580	-	-	-	5860	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	1500U	-	-	-	1500U	-	-	-	1500U	-
Sulfide	ug/L	N	NS	-	-	-	530U	-	-	-	530U	-	-	-	530U	-

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10
			Sample Date	08/11/2006	10/05/2006	10/05/2006	10/06/2006	01/18/2007	01/19/2007	05/21/2007	05/22/2007	08/06/2007	08/07/2007	11/07/2007	11/08/2007	01/16/2008
			Field Sample ID	NF10306X	NF10406	NF10406	NF10406X	NF10107	NF10107X	NF10207	NF10207X	NF10307	NF10307X	NF10407	NF10407X	NF10108
			SDG	1001382	1008884	1008885	1008884	1022362	1022362	1039430	1039430	1050409	1050409	1064801	1064801	1073788
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	3.92	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	0	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-209	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	6.95	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	201000	-	-	-	247000	-	-	-	264000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	460U	-	-	-	460U	-	-	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	10U	-	-	-	10.0U	-	-	-	10.0U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	440	-	-	410	-	440	-	460	-	530	-	490	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	3300J	-	-	-	-	9520	-	-	-	3450	-	-
Iron	ug/L	Y	300	-	-	2670J	-	-	-	9210	-	-	-	2030	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	40U	-	-	-	40U	-	-	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	1500U	-	-	-	10000U	-	-	-	10000U	-
Sulfide	ug/L	N	NS	-	-	-	530U	-	-	-	800J	-	-	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10
			Sample Date	01/17/2008	05/19/2008	05/20/2008	07/14/2008	07/15/2008	11/17/2008	11/18/2008	01/26/2009	01/27/2009	10/19/2009	10/20/2009	02/04/2010	02/04/2010
			Field Sample ID	NF10108X	NF10208	NF10208X	NF10308	NF10308X	NF10408	NF10408X	NF10109	NF10109X	NF10409	NF10409X	NF10110	NF10110X
			SDG	1073788	1092256	1092256	1100673	1100673	1120766	1120766	1129788	1129788	1167217	1167217	1181531	1181531
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	2.99	-	3.76	-	-	-	4.01	-	3.92	-	1.5	1.5
DO	mg/L	N	NS	-	0.78	-	0.67	-	-	-	0.11	-	1.04	-	4.18	4.18
ORP	millivolts	N	NS	-	-160	-	-128	-	-	-	-86	-	-99	-	-165	-165
pH	pH Units	N	NS	-	8.39	-	6.62	-	-	-	5.37	-	6.87	-	6.85	6.85
Alkalinity to pH 4.5	ug/L	N	NS	-	-	251000	-	-	-	251000	-	-	-	257000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	460U	-	-	-	460U	-	-	-	460U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	10.2U	-	-	-	10.0U	-	-	-	7.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	400	-	410	-	450	-	240	-	410	-	260	-	410
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	11500	-	-	-	2520	-	-	-	3560	-	-	-
Iron	ug/L	Y	300	-	10700	-	-	-	1480	-	-	-	1290	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	-	-	40U	-	-	-	40U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	2500U	-	-	-	2500U	-	-	-	5000U	-	-
Sulfide	ug/L	N	NS	-	-	800J	-	-	-	530U	-	-	-	530U	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10
			Sample Date	04/21/2010	04/22/2010	07/26/2010	07/27/2010	11/09/2010	11/10/2010	03/01/2011	03/02/2011	04/11/2011	04/12/2011	07/18/2011	07/19/2011	10/20/2011
			Field Sample ID	NF10210	NF10210X	NF10310	NF10310x	NF10410	NF10410X	NF10111	NF10111X	NF10211	NF10211X	NF10311	NF10311X	NF10411
			SDG	RFS39	RFS39	RFS59	RFS59	RFS78	RFS78	RFS94	RFS94	RFT07	RFT07	RFT43	RFT43	RFT80
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.77	0.05	2.48	0	6.06	0	2.79	1.2	1	1.63	3.24	0.37	0.1
DO	mg/L	N	NS	11.44	3.79	0	5.1	3.98	4.81	8.89	3.86	13.08	5.55	14.8	4.99	12.36
ORP	millivolts	N	NS	151	162	-170	-105	-81	-92	-113	-76	-107	-35	-106	-112	-64
pH	pH Units	N	NS	6.83	6.70	7.86	6.80	7.06	8.26	7.40	7.23	7.35	7.09	7.37	6.67	7.37
Alkalinity to pH 4.5	ug/L	N	NS	-	251000	-	-	-	257000	-	-	-	246000	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	-	-	460U	-	-	-	460U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	9.8U	-	-	-	9.8U	-	-	-	5.1U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	410	-	390	-	300	-	290	-	360	-	380	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	10800	-	-	-	3600	-	-	-	3690	-	-	-	2110
Iron	ug/L	Y	300	8900	-	-	-	1230	-	-	-	52.2U	-	-	-	494
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	-	40U	-	-	-	40U	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	2500U	-	-	-	2500U	-	-	-	5000U	-	-	-
Sulfide	ug/L	N	NS	-	530U	-	-	-	530U	-	-	-	530U	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10
			Sample Date	10/21/2011	02/01/2012	02/02/2012	04/02/2012	04/03/2012	07/17/2012	07/17/2012	10/11/2012	10/11/2012	02/04/2013	02/05/2013	04/17/2013	04/18/2013
			Field Sample ID	NF10411X	NF10112	NF10112X	NF10212	NF10212X	NF10312	NF10312X	NF10412	NF10412X	NF10113	NF10113X	NF10213	NF10213X
			SDG	RFT80	RFU06	RFU06	RFU36	RFU36	RFV10	RFV10	RFV63	RFV63	RFX45	RFX45	RFY95	RFY95
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.01	2.22	0.12	4.91	2.14	2.75	2.75	4.77	4.77	3.41	11.08	3.58	3.76
DO	mg/L	N	NS	4.88	10.56	3.97	11.52	4.88	5.05	5.05	13.22	13.22	8.8	0.94	8.92	0.28
ORP	millivolts	N	NS	-55	-106	-72	-100	8	-132	-132	-207	-207	-184	-68	-113	-257
pH	pH Units	N	NS	7.12	7.72	7.55	7.62	6.86	6.75	6.75	7.37	7.37	7.51	4.14	7.33	7.21
Alkalinity to pH 4.5	ug/L	N	NS	232000	-	-	-	242000	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	-	-	460U	-	-	-	700U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	274000	-	-	-	246000
Arsenic	ug/L	N	3	-	5.1U	-	-	-	6.8U	-	-	-	2.0	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	250	-	380	-	360	-	410	-	420	-	320	-	410
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	6260	-	-	-	4880	-	-	-	7650	-
Iron	ug/L	Y	300	-	-	-	5670	-	-	-	1640	-	-	-	7120	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	40U	-	-	-	40U	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	2500U	-	-	-	5000U	-	-	-	2500U	-	-	-	2500U
Sulfide	ug/L	N	NS	710J	-	-	-	600U	-	-	-	600U	-	-	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10
			Sample Date	07/24/2013	07/25/2013	08/19/2013	10/16/2013	11/13/2013	11/13/2013	03/26/2014	03/27/2014	04/24/2014	04/25/2014	07/24/2014	07/25/2014	08/18/2014
			Field Sample ID	NF10313	NF10313X	NF10A2	NF10413X	D1113131	NF10413	NF10114	NF10114X	NF10214	NF10214X	NF10314	NF10314X	NF10A3
			SDG	RFB73	RFB73	CP078	CS029	CS044	CS044	CS077	CS077	CS091	CS091	CS131	CS131	CP473
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.26	4.14	3.61	-	-	-	3.67	4.45	3.61	5.71	3.51	4.01	5.29
DO	mg/L	N	NS	3.28	0.15	1.11	-	-	-	4.79	1.47	5.61	1.11	5.04	0.96	0.33
ORP	millivolts	N	NS	-124	-166	-86.9	-	-	-	-240	-404	-249	-486	155	205	-110.1
pH	pH Units	N	NS	7.02	7.03	6.80	-	-	-	6.80	7.18	7.29	7.21	6.90	6.15	6.67
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	270000	278000	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	700U	-	-	-	-	-	700U	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	270000	278000	-	-	-	-	-	246000	-	-	-
Arsenic	ug/L	N	3	3.4	-	5.7	-	-	-	2.1	-	-	-	3.7	-	4.6
Arsenic	ug/L	Y	3	-	-	4.4	-	-	-	-	-	-	-	-	-	4.3
Benzene	ug/L	N	1	-	340	270	390	-	-	-	420	-	430	-	430	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	8540	-	3860	3740	-	-	5160	-	-	-	7830
Iron	ug/L	Y	300	-	-	-	-	2920	2890	-	-	6070	-	-	-	6760
Methane	ug/L	N	NS	-	-	7900	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	40U	-	-	-	-	-	40U	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	1500U	2500U	-	-	-	-	-	5000U	-	-	-
Sulfide	ug/L	N	NS	-	-	600U	600U	-	-	-	-	-	600U	-	-	-

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10	NF-10
			Sample Date	08/18/2014	10/08/2014	10/09/2014	12/05/2014	12/05/2014	01/14/2015	01/15/2015	05/04/2015	05/05/2015	07/15/2015	07/16/2015	10/07/2015	10/08/2015
			Field Sample ID	NF10A3X	NF10414	NF10414X	NF10A4	NF10A4X	NF10115	NF10115X	NF10215	NF10215X	NF10315	NF10315X	NF10415	NF10415X
			SDG	CP473	CS168	CS168	CP617	CP617	CS195	CS195	CS226	CS226	CS262	CS262	CS296	CS296
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.29	4.97	10.53	5.26	5.26	3.65	4.13	-	4.32	-	4.38	-	-
DO	mg/L	N	NS	0.33	5.92	-	5.93	5.93	6.05	4.3	-	8.43	-	7.4	-	7.49
ORP	millivolts	N	NS	-110.1	-120	-	-74.8	-74.8	-128	-167	-	-125	-	-96	-	77
pH	pH Units	N	NS	6.67	6.85	-	7.08	7.08	7.40	7.25	-	7.03	-	7.47	-	7.02
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	700U	-	-	-	-	-	700U	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	264000	-	-	-	-	-	234000	-	-	-	226000
Arsenic	ug/L	N	3	-	-	-	2.6	-	2.2	-	-	-	4.1J	-	-	-
Arsenic	ug/L	Y	3	-	-	-	2.7	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	400	-	360	-	400	-	430	-	560	-	520	-	370
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	6420	-	4380	-	-	-	6690	-	-	-	5350	-
Iron	ug/L	Y	300	-	3420	-	4710	-	-	-	5980	-	-	-	3930	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	-	-	-	-	40U	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	1500U	-	2500U	-	1500U	-	-	-	2500U	-	-	-	2500U
Sulfide	ug/L	N	NS	600U	-	600U	-	600U	-	-	-	680U	-	-	-	680U

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-10	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11
			Sample Date	11/14/2017	10/16/2001	01/23/2002	03/28/2002	04/04/2002	07/17/2002	10/01/2002	01/13/2003	01/13/2003	04/24/2003	07/07/2003	10/09/2003	05/05/2004
			Field Sample ID	NF10A5X	NF11401	NF11102	NF11A1	NF11202	NF11302	NF11402Y	NF11103X	NF11103Y	NF11203Y	NF11303	NF11403	NF11204A
			SDG	CQ885		269011	HPA07	279120	293541	GWC01	GWC02	GWC02	GWC04	GWC06	GWC08	GWC11
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.55	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	8.21	-	-	-	-	-	-	-	-	1.58	0	-	-
ORP	millivolts	N	NS	-167.9	-	-	-	-	-	-	-	-	-115	-132	-	-
pH	pH Units	N	NS	7.99	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	6.00	-	-	6.00	-	5.6J	-	-	4.9U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	330	1U	13.80	-	98.1	18.1	190	-	120	94	61	130	64
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	400U	-	-	-	-	-	40U	-	40U	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11
			Sample Date	08/04/2004	08/04/2004	12/15/2004	12/16/2004	12/16/2004	02/02/2005	02/03/2005	05/04/2005	05/04/2005	08/08/2005	08/09/2005	10/03/2005	10/04/2005
			Field Sample ID	NF11304	NF11304	NF11404	NF11404X	NF11404X	NF11105	NF11105X	NF11205	NF11205X	NF11305	NF11305X	NF11405	NF11405X
			SDG	GWC14	RFF18	NFE16	GWC17	NFE16	GWC18	GWC18	942145	942145	954690	954690	961782	961782
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	3.62	3.62	3.99	-	4.54	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	2.16	2.16	2.21	-	0	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-127	-127	-100	-	-151	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	6.14	6.14	6.08	-	6.43	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	254000	-	-	-	216000	-	-	-	195000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	410U	-	-	-	410U	-	-	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	6.8J	-	-	-	-	8.7J	-	-	-	9.3U	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	97	-	58	60	-	8	-	32	-	18	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	50400	-	-	-	-	48000	-	-	-	50500	-
Iron	ug/L	Y	300	-	-	36700	-	-	-	-	40000	-	-	-	34600	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	6900J	-	-	-	7500U	-	-	-	7500U
Sulfide	ug/L	N	NS	-	-	-	-	530U	-	-	-	680J	-	-	-	530U

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11
			Sample Date	01/12/2006	01/12/2006	04/19/2006	04/20/2006	07/26/2006	07/27/2006	10/05/2006	10/05/2006	10/06/2006	01/16/2007	01/17/2007	04/24/2007	04/24/2007
			Field Sample ID	NF11106	NF11106X	NF11206	NF11206X	NF11306	NF11306X	NF11406	NF11406	NF11406X	NF11107	NF11107X	NF11207	NF11207X
			SDG	974195	974195	986437	986437	999108	999108	1008884	1008885	1008884	1021982	1021982	1035058	1035058
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.63	3.63	-	3.62	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	0.56	0.56	-	0.36	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-172	-172	-	-133	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	6.88	6.88	-	6.53	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	289000	-	-	-	-	280000	-	-	-	177000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	460U	-	-	-	-	460U	-	-	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	9.3U	-	-	-	10U	-	-	-	-	10U	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	140	-	190	-	100	-	-	110	-	27	-	85
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	42300	-	-	-	40200J	-	-	-	-	45600	-
Iron	ug/L	Y	300	-	-	40200	-	-	-	-	34000J	-	-	-	42200	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	-	-	40U	-	-	40U	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	24800	-	-	-	-	3000U	-	-	-	37200J
Sulfide	ug/L	N	NS	-	-	-	530U	-	-	-	-	530U	-	-	-	530U

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11
			Sample Date	07/30/2007	07/31/2007	07/31/2007	11/07/2007	11/08/2007	11/08/2007	01/16/2008	01/17/2008	05/05/2008	05/06/2008	07/14/2008	07/15/2008	10/03/2008
			Field Sample ID	NF11307	D0731071	NF11307X	NF11407	D1108071	NF11407X	NF11108	NF11108X	NF11208	NF11208X	NF11308	NF11308X	NF11408
			SDG	1049322	1049322	1049322	1064801	1064801	1064801	1073788	1073788	1089841	1089841	1100673	1100673	1113378
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	FD	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	4.11	-	-	-	-	2.59	-	4.01	-	3.88
DO	mg/L	N	NS	-	-	-	0	-	-	-	-	1.31	-	0.42	-	2.22
ORP	millivolts	N	NS	-	-	-	-133	-	-	-	-	26	-	-100	-	-120
pH	pH Units	N	NS	-	-	-	6.40	-	-	-	-	5.72	-	6.62	-	6.43
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	198000	191000	-	-	-	176000	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	460U	460U	-	-	-	460U	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.0U	-	-	-	-	-	10.0U	-	-	-	10.6J	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	50	55	-	21	20	-	31	-	0.5U	-	17	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	42400	-	-	-	-	3360	-	-	-	43100
Iron	ug/L	Y	300	-	-	-	32200	-	-	-	-	1060	-	-	-	29300
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	40U	40U	-	-	-	40U	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	10000U	10000U	-	-	-	88900	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	530U	530U	-	-	-	530U	-	-	-

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11
			Sample Date	10/03/2008	01/26/2009	01/27/2009	04/28/2009	08/10/2009	08/11/2009	10/21/2009	10/22/2009	02/04/2010	02/04/2010	04/21/2010	04/21/2010	04/22/2010
			Field Sample ID	NF11408X	NF11109	NF11109X	NF11209X	NF11309	NF11309X	NF11409	NF11409X	NF11110	NF11110X	D0421101	NF11210	D0422101
			SDG	1113378	1129788	1129788	1142383	1157187	1157187	1167632	1167632	1181531	1181531	RFS39	RFS39	RFS39
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	3.88	4.02	-	-	2.98	-	3.95	-	0	0	1.59	1.59	0.32
DO	mg/L	N	NS	2.22	0	-	-	4.25	-	1.25	-	3.68	3.68	3.58	3.58	3.56
ORP	millivolts	N	NS	-120	-94	-	-	-107	-	-61	-	-120	-120	139	139	137
pH	pH Units	N	NS	6.43	5.20	-	-	5.92	-	6.18	-	6.42	6.42	6.42	6.42	6.37
Alkalinity to pH 4.5	ug/L	N	NS	270000	-	-	179000	-	-	-	287000	-	-	-	-	225000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	-	460U	-	-	-	460U	-	-	-	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.0U	-	-	7.2U	-	-	-	7.2U	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	74	-	47	4J	-	86	-	24	-	130	-	-	38
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	48000	-	-	-	42800	43000	-
Iron	ug/L	Y	300	-	-	-	-	-	-	32000	-	-	-	35700	35500	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	40U	-	-	-	40U	-	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	2500U	-	-	10100	-	-	-	5000U	-	-	-	-	5000U
Sulfide	ug/L	N	NS	530U	-	-	530U	-	-	-	530U	-	-	-	-	530U

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11	NF-11
			Sample Date	04/22/2010	07/26/2010	07/27/2010	11/09/2010	11/10/2010	03/01/2011	03/02/2011	06/07/2011	06/08/2011	07/07/2011	07/08/2011	10/13/2011	10/14/2011
			Field Sample ID	NF11210X	NF11310	NF11310X	NF11410	NF11410X	NF11111	NF11111X	NF11211	NF11211X	NF11311	NF11311X	NF11411	NF11411X
			SDG	RFS39	RFS59	RFS59	RFS78	RFS78	RFS94	RFS94	RFT30	RFT30	RFT40	RFT40	RFT78	RFT78
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.32	3.51	0	3.12	1.51	2.42	1.15	6.48	3.59	1.54	0	4.54	1.85
DO	mg/L	N	NS	3.56	3.98	3.99	3.66	3.76	2.76	2.73	3.41	3.44	3.57	3.68	4.07	3.39
ORP	millivolts	N	NS	137	-166	-122	-101	-123	-108	-92	-103	-122	-52	-163	-31	-42
pH	pH Units	N	NS	6.37	7.55	7.04	6.67	8.34	6.99	6.91	6.66	6.60	6.61	6.37	6.94	6.63
Alkalinity to pH 4.5	ug/L	N	NS	230000	-	-	-	214000	-	-	-	190000	-	-	-	138000
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	-	-	460U	-	-	-	460U	-	-	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.8U	-	-	-	9.8U	-	-	-	5.1U	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	51	-	94	-	42	-	110	-	120	-	43	-	5J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	36500	-	-	-	36700	-	-	-	35800	-
Iron	ug/L	Y	300	-	-	-	33200	-	-	-	36300	-	-	-	32800	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	-	-	40U	-	-	-	40U	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	5000U	-	-	-	10000U	-	-	-	10000U	-	-	-	10000U
Sulfide	ug/L	N	NS	530U	-	-	-	530U	-	-	-	530U	-	-	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-11	NF-11	NF-11	NF-11	NF-12	NF-12	NF-12	NF-12	NF-12	NF-12	NF-12	NF-12	NF-12
			Sample Date	02/01/2012	02/02/2012	04/02/2012	04/03/2012	10/15/2001	01/22/2002	03/27/2002	04/10/2002	07/16/2002	10/11/2002	01/02/2003	01/02/2003	04/25/2003
			Field Sample ID	NF11112	NF11112X	NF11212	NF11212X	NF12401	NF12102	NF12A1	NF12202	NF12302	NF12402	NF12103X	NF12103Y	NF12203Y
			SDG	RFU06	RFU06	RFU36	RFU36		268868	HPA06	279740	293320	GWC01	GWC02	GWC02	GWC04
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.82	0.14	2.47	1.55	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	3.91	3.9	3.85	3.92	-	-	-	-	-	-	-	-	1.13
ORP	millivolts	N	NS	-40	-72	-64	23	-	-	-	-	-	-	-	-	-335
pH	pH Units	N	NS	7.27	7.25	7.44	6.39	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	89500	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	460U	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	5.1U	-	-	-	-	5.0U	-	-	5.0U	-	4.9U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.6J	-	1J	0.00065U	1.00U	-	1.0U	1.00U	0.9U	-	0.9U	0.9U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	37200	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	37400	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	-	400U	-	-	-	-	-	1000U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	5300J	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	600U	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-12	NF-12	NF-12	NF-12	NF-12	NF-12	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13
			Sample Date	07/11/2003	07/11/2003	10/02/2003	04/28/2004	07/22/2004	07/22/2004	10/11/2001	02/13/2002	03/27/2002	04/09/2002	07/17/2002	10/11/2002	01/02/2003
			Field Sample ID	NF12303	NF12303	NF12403	NF12204A	NF12304	NF12304	NF13401	NF13102	NF13A1	NF13202	NF13302	NF13402Y	NF13103Y
			SDG	GWC05	GWC06	GWC08	GWC10	GWC13	GWC14		271965	HPA06	279514	293541	GWC01	GWC02
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	4.9U	-	-	-	8.6J	-	-	5.0U	-	-	15.0	-	4.9U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.9U	0.9U	0.9U	-	0.9U	0.00065U	5.00U	-	1.0U	1.00U	0.9U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	40U	-	40U	-	-	400U	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13
			Sample Date	01/03/2003	04/24/2003	07/03/2003	10/02/2003	04/27/2004	07/21/2004	07/21/2004	12/14/2004	01/31/2005	02/01/2005	05/04/2005	08/08/2005	08/09/2005
			Field Sample ID	NF13103X	NF13203Y	NF13303	NF13403	NF13204A	NF13304	NF13304	NF13404X	NF13105	NF13105X	NF13205X	NF13305	NF13305X
			SDG	GWC02	GWC04	GWC05	GWC08	GWC10	GWC13	GWC14	GWC17	GWC18	GWC18	942145	954690	954690
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	7.38	-
DO	mg/L	N	NS	-	1.24	-	-	-	-	-	-	-	-	-	4.34	-
ORP	millivolts	N	NS	-	-200	-	-	-	-	-	-	-	-	-	-244	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	5.76	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	7.3J	-	-	4.7U	-	-	5.6J	-	-	9.3U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.9U	0.9U	0.9U	0.9U	0.9U	-	0.9U	0.9U	-	0.9U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	400U	-	40U	40U	-	200U	400U	-	40U	200U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13
			Sample Date	10/06/2005	01/10/2006	01/11/2006	04/18/2006	07/26/2006	07/27/2006	10/06/2006	01/16/2007	01/17/2007	04/26/2007	11/01/2007	01/07/2008	01/08/2008
			Field Sample ID	NF13405X	NF13106	NF13106X	NF13206X	NF13306	NF13306X	NF13406X	NF13107	NF13107X	NF13207X	NF13407X	NF13108	NF13108X
			SDG	962189	974020	974020	986041	999108	999108	1008884	1021982	1021982	1035529	1063753	1072349	1072349
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	9.34	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	0.62	-	-	-	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	38	-	-	-	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	5.42	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.3U	-	-	10U	-	-	10U	-	-	-	10.0U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	400U	-	200U	40U	-	400U	40U	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	986000	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13
			Sample Date	05/01/2008	07/10/2008	07/11/2008	10/09/2008	01/20/2009	01/21/2009	04/28/2009	08/05/2009	08/06/2009	10/21/2009	02/03/2010	02/04/2010
			Field Sample ID	NF13208X	NF13308	NF13308X	NF13408X	NF13109	NF13109X	NF13209X	NF13309	NF13309X	NF13409X	NF13110	NF13110X
			SDG	1089148	1100292	1100292	1114369	1129030	1129030	1142383	1156644	1156644	1167395	1181531	1181531
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	10.02	-	-	8.95	-	-	-	7.51	-	0	-
DO	mg/L	N	NS	-	0.58	-	-	0	-	-	-	0.88	-	9.2	-
ORP	millivolts	N	NS	-	-142	-	-	-90	-	-	-	-104	-	-253	-
pH	pH Units	N	NS	-	6.42	-	-	4.88	-	-	-	5.84	-	5.72	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.2U	-	-	10.0U	-	-	7.2U	-	-	7.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13
			Sample Date	05/20/2010	07/22/2010	07/23/2010	11/11/2010	03/09/2011	03/09/2011	04/14/2011	07/07/2011	07/08/2011	10/21/2011	01/23/2012	01/24/2012
			Field Sample ID	NF13210X-100520	NF13310	NF13310X	NF13410X	NF13111	NF13111X	NF13211X	NF13311	NF13311X	NF13411X	NF13112	NF13112X
			SDG	RFS43	RFS57	RFS57	RFS80	RFS97	RFS97	RFT08	RFT40	RFT40	RFT80	RFU02	RFU02
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0	6.38	0	-	2.06	2.06	0	6.97	0	-	4.98	1.73
DO	mg/L	N	NS	23.06	0	24.09	-	22.72	22.72	25.38	24.9	24.33	-	23.28	21.91
ORP	millivolts	N	NS	-395	-371	-397	-	-267	-267	0	-247	-368	-	-	-137
pH	pH Units	N	NS	6.84	10.05	9.76	-	6.34	6.34	0.00	6.40	6.38	-	-	6.49
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	9.8U	-	-	9.8U	-	-	5.1U	-	-	11.9J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13
			Sample Date	04/03/2012	07/10/2012	07/11/2012	10/11/2012	01/28/2013	01/29/2013	04/18/2013	07/17/2013	07/18/2013	10/08/2013	02/26/2014	02/27/2014	05/02/2014
			Field Sample ID	NF13212X	NF13312	NF13312X	NF13412X	NF13113	NF13113X	NF13213X	NF13313	NF13313X	NF13413X	NF13114	NF13114X	NF13214X
			SDG	RFU36	RFV06	RFV06	RFV63	RFX42	RFX42	RFY95	RFB44	RFB44	CS025	CS067	CS067	CS093
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.37	2.11	-	0.95	7.02	19.01	8.01	7.14	20.91	-	7.32	16.86	19.28
DO	mg/L	N	NS	16.46	23.19	18.24	22.52	3.92	0.27	0.09	3.82	0.38	-	4.76	0.75	1.27
ORP	millivolts	N	NS	-26	-	-	-366	-410	-299	-352	-200	-310	-	-69	-204	-320
pH	pH Units	N	NS	5.84	-	-	7.93	6.15	6.02	6.58	6.57	6.34	-	6.12	5.90	6.34
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	6.8U	-	-	1.4J	-	-	1.6J	-	-	1.5J	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	0.5U	-	0.5U	0.5U	-	0.5U	1U	-	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-13	NF-14	NF-14	NF-14	NF-14
			Sample Date	07/24/2014	07/25/2014	10/15/2014	01/22/2015	01/23/2015	05/05/2015	08/10/2015	08/11/2015	10/08/2015	10/10/2001	01/17/2002	03/27/2002	04/09/2002
			Field Sample ID	NF13314	NF13314X	NF13414X	NF13115	NF13115X	NF13215X	NF13315	NF13315X	NF13415X	NF14401	NF14102	NF14A1	NF14202
			SDG	CS131	CS131	CS171	CS198	CS198	CS226	CS271	CS271	CS296		268291	HPA06	279514
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.42	15.65	23.42	7.23	24.86	23.46	-	23.15	20.98	-	-	-	-
DO	mg/L	N	NS	3.46	3.54	0.47	0.39	0.59	0.24	-	1.34	4.96	-	-	-	-
ORP	millivolts	N	NS	155	7	-403	-261	-320	-282	-	-86	75	-	-	-	-
pH	pH Units	N	NS	5.68	5.81	6.41	6.69	6.52	6.32	-	6.37	6.35	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	1.6J	-	-	0.82U	-	-	6.9	-	-	-	5.0U	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	0.5U	-	0.5U	0.5UJ	-	1U	0.5U	0.00065U	1.00U	-	1.0U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	400U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-14	NF-14	NF-14	NF-14	NF-14	NF-14	NF-14	NF-14	NF-14	NF-15	NF-15	NF-15	NF-15
			Sample Date	07/15/2002	10/11/2002	01/02/2003	01/02/2003	04/23/2003	07/02/2003	10/02/2003	04/27/2004	07/21/2004	03/27/2002	10/30/2002	10/30/2002	02/13/2003
			Field Sample ID	NF14302	NF14402Y	NF14103X	NF14103Y	NF14203Y	NF14303	NF14403	NF14204A	NF14304	NF15A1	N015A2X	N015A2Y	N015A3X
			SDG	293060	GWC01	GWC02	GWC02	GWC04	GWC05	GWC08	GWC10	GWC13	HPA06	RFE35	RFE35	RFE64
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	1.1	0	-	-	-	-	0.72	0.72	1.87
ORP	millivolts	N	NS	-	-	-	-	-72	-63	-	-	-	-	-78	-78	0
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	726000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	726000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	5.0U	-	4.9U	-	-	4.9U	-	-	4.7U	-	6.7J	-	4.9U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1.00U	0.9U	-	0.9U	0.9U	0.9U	0.9U	0.9U	0.9U	-	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	27900	-	12100
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	40U	-	40U	40U	200U	400U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	7500U	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-15	NF-15	NF-16	NF-16	NF-16	NF-16	NF-16	NF-16	NF-16	NF-16	NF-16	NF-16	NF-16
			Sample Date	02/13/2003	05/04/2004	10/05/2001	01/16/2002	03/27/2002	04/10/2002	07/15/2002	10/11/2002	01/02/2003	01/02/2003	04/23/2003	07/11/2003	10/08/2003
			Field Sample ID	N015A3Y	NF15204A	NF16401	NF16102X	NF16A1	NF16202	NF16302	NF16402Y	NF16103X	NF16103Y	NF16203Y	NF16303	NF16403
			SDG	RFE64	GWC10		268146	HPA06	279740	293060	GWC01	GWC02	GWC02	GWC04	GWC05	GWC08
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	1.87	-	-	-	-	-	-	-	-	-	1.23	-	-
ORP	millivolts	N	NS	0	-	-	-	-	-	-	-	-	-	-17	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	770000	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	770000	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	5.0U	-	-	5.0U	-	4.9U	-	-	4.9U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.9U	0.65U	1.00U	-	1.0U	1.00U	0.9U	-	0.9U	0.9U	0.9U	0.9U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	40U	-	-	1250	-	-	-	-	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	7500U	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	NF-16	NF-17	NF-5B	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1
			Sample Date	05/04/2004	10/11/2001	09/22/1997	03/28/2002	11/14/2005	11/15/2005	06/01/2006	06/02/2006	11/30/2006	12/01/2006	06/11/2007	06/12/2007	12/12/2007
			Field Sample ID	NF16204A	NF17401	NF-5B-A1	P001A1	P001A2	P001A2X	P001A3	P001A3X	P001A4	P001A4X	P001A5	P001A5X	P001A6
			SDG	GWC10		74432	HPA07	967531	967531	991967	991967	1016343	1016343	1042260	1042260	1069704
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	6.75	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	-	-	-	0	-	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-	-	-	-	-189	-	-	-	-	-	-	-	-
pH	pH Units	N	NS	-	-	-	-	7.33	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	4.42	-	9.3U	-	10U	-	10U	-	10.0U	-	10.0U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.9U	2.000	1U	-	-	2J	-	2J	-	2J	-	2J	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	3600	-	-	400U	-	40U	-	40U	-	40U	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1
			Sample Date	12/13/2007	08/21/2008	08/22/2008	11/03/2008	11/04/2008	07/09/2009	07/10/2009	11/12/2009	11/12/2009	06/28/2010	06/29/2010	09/29/2010
			Field Sample ID	P001A6X	P001A7	P001A7X	P001A8	P001A8X	P001A9	P001A9X	P001B1	P001B1X	P001B2-100628	P001B2X-100629	P001B3
			SDG	1069704	1106759	1106759	1118353	1118353	1153027	1153027	1170880	1170880	RFS51	RFS51	RFS69
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	6.16	-	6.07	-	5.48	-	6.35	6.35	1.85	0.25	2.22
DO	mg/L	N	NS	-	0	-	0	-	0	-	1.19	1.19	0	7.5	4.82
ORP	millivolts	N	NS	-	-62	-	-120	-	-222	-	-90	-90	-104	-66	38
pH	pH Units	N	NS	-	7.19	-	6.46	-	7.11	-	7.01	7.01	8.11	7.19	6.61
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	10.2U	-	10.0U	-	7.2U	-	7.2U	-	9.8U	-	9.8U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1J	-	1J	-	1J	-	1J	-	0.6J	-	1J	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1
			Sample Date	09/29/2010	06/06/2011	06/07/2011	11/14/2011	11/15/2011	03/08/2012	03/09/2012	08/08/2012	08/09/2012	04/04/2013	04/05/2013	09/24/2013	09/25/2013
			Field Sample ID	P001B3X	P001B4	P001B4X	P001B5	P001B5X	P001B6	P001B6X	P001B7	P001B7X	P001B8	P001B8X	P001B9	P001B9X
			SDG	RFS69	RFT29	RFT29	RFT86	RFT86	RFU16	RFU16	RFV27	RFV27	RFY57	RFY57	CS015	CS015
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	2.22	1.89	0	2.75	0	0.44	0.23	1.44	5.5	6.46	6.28	7.22	8.96
DO	mg/L	N	NS	4.82	14.52	6.71	15.09	7.33	15.5	6.44	15.21	7.95	4.92	0.08	1.15	0.03
ORP	millivolts	N	NS	38	-65	-148	-54	-99	-23	-109	-108	-188	-155	-257	-404	-243
pH	pH Units	N	NS	6.61	7.51	7.05	7.26	7.07	6.24	6.92	13.46	7.49	7.23	7.33	7.19	7.29
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	700U	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	353000	-	223000	-	373000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	353000	-	223000	-	373000
Arsenic	ug/L	N	3	-	5.1U	-	5.1U	-	5.1U	-	0.40U	-	0.40U	-	0.42U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	0.40U	-	0.40U	-	0.42U	-
Benzene	ug/L	N	1	2J	-	1J	-	0.9J	-	0.8J	-	0.9J	-	0.5U	-	0.9J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	153J	-	1620	-	2500	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	33.3U	-	906	-	1110	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	12700	-	153000	-	8000
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	690J	-	600U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-1	P-10	P-10
			Sample Date	06/23/2014	06/24/2014	11/13/2014	11/14/2014	06/29/2015	06/30/2015	10/17/2017	10/17/2017	10/17/2017	12/11/2017	12/11/2017	07/28/2008	07/29/2008
			Field Sample ID	P001C1	P001C1X	P001C2	P001C2X	P001C3	P001C3X	D1017178A	P001C8	P001C8X	P001C9	P001C9X	P010A1	P010A1X
			SDG	CS116	CS116	CS186	CS186	CS256	CS256	CQ820	CQ820	CQ820	CQ923	CQ923	1102860	1102860
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	6.33	6.87	5.52	6.33	-	6.34	6.24	6.24	6.24	5.79	5.79	4.91	-
DO	mg/L	N	NS	0.93	0.18	4.21	1.72	-	10.81	6.64	6.64	6.64	3.06	3.06	0.54	-
ORP	millivolts	N	NS	-80	-88	-188	-331	-	4	-100.7	-100.7	-100.7	-72.1	-72.1	-166	-
pH	pH Units	N	NS	6.89	1.31	7.20	6.99	-	6.87	7.66	7.66	7.66	7.47	7.47	7.37	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	323000	-	412000	-	402000	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	700U	-	700U	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	323000	-	412000	-	402000	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	0.82U	-	0.82U	-	0.82U	-	1.2J	1.5J	-	0.72U	-	10.2U	-
Arsenic	ug/L	Y	3	0.82U	-	0.82U	-	0.82U	-	0.72U	0.72U	-	0.72U	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5J	-	0.5U	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	1680	-	1030	-	1180	-	1630	1880J	-	2050	-	5800	-
Iron	ug/L	Y	300	1320	-	814	-	511	-	1440	1470J	-	1160	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	71600	-	332000	-	148000	7800J	-	16300J	-	9500	-	-
Sulfide	ug/L	N	NS	-	600U	-	600U	-	680U	700U	-	700U	-	700U	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	P-10	P-10	P-10	P-10	P-10	P-10	P-10	P-10	P-10	P-10	P-10	P-10
			Sample Date	11/03/2008	11/04/2008	07/08/2009	07/09/2009	11/04/2009	11/05/2009	06/29/2010	09/29/2010	07/26/2011	11/10/2011	02/28/2012	08/16/2012
			Field Sample ID	P010A2	P010A2X	P010A3	P010A3X	P010A4	P010A4X	P010A5X-100629	P010A6X	P010A7X	P010A8X	P010A9X	D0816121
			SDG	1118353	1118353	1152857	1152857	1169793	1169793	RFS51	RFS69	RFT46	RFT85	RFU13	RFV29
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	FD
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	5.09	-	4.64	-	4.93	-	0.78	0.39	2.34	-	0.02	4.23
DO	mg/L	N	NS	0	-	0	-	1.01	-	4.82	4.82	8.21	-	9.08	4.67
ORP	millivolts	N	NS	-193	-	-139	-	-117	-	96	-112	-122	-	-64	-54
pH	pH Units	N	NS	6.87	-	6.81	-	7.11	-	7.62	6.96	7.11	-	6.98	7.58
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.0U	-	7.2U	-	7.2U	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	6850	-	7190	-	8490	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	P-10	P-10	P-10	P-10	P-10	P-10	P-10	P-2	P-2	P-2	P-2	P-2	P-4
			Sample Date	08/16/2012	03/19/2013	09/25/2013	05/30/2014	12/12/2014	06/26/2015	03/01/2018	12/03/2002	12/04/2002	12/04/2002	04/08/2003	04/10/2003	10/15/2002
			Field Sample ID	P010B1X	P010B2X	P010B3X	P010B4X	P010B5X	P010B6	P010C2	P002A1Y	P002A1X	P002A1Z	P002A2X	P002A2Y	P004A1X
			SDG	RFV29	RFY13	CS015	CS107	CS192	CS255	CS655	RFE43	RFE43	RFE43	RFE70	RFE70	RFE30
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.23	4.5	4.83	5.14	4.75	6.37	-	-	-	-	-	-	-
DO	mg/L	N	NS	4.67	0.63	0.37	1.4	-0.16	2.25	-	0.98	-	-	1.33	-	2.08
ORP	millivolts	N	NS	-54	-247	-254	-450	-183	-65	-	32	-	-	-28	-	118
pH	pH Units	N	NS	7.58	7.24	7.54	7.21	7.36	7.78	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	956000	-	-	698000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	410U	-	-	410U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	956000	-	-	698000	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	4.9U	-	-	6.4J	-	21.4
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	-	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	181000	-	-	208000	-	54400
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	630000	-	-	1280000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	P-4	P-4	P-4	P-5	P-5	P-5	P-5	P-6	P-6	P-6	P-6	P-6	P-6
			Sample Date	10/16/2002	02/03/2003	02/04/2003	10/17/2002	10/17/2002	02/05/2003	02/05/2003	10/22/2002	10/22/2002	02/24/2003	02/24/2003	07/28/2008	07/29/2008
			Field Sample ID	P004A1Y	P004A2Y	P004A2X	P005A1X	P005A1Y	P005A2X	P005A2Y	P006A1X	P006A1Y	P006A2X	P006A2Y	P006A3	P006A3X
			SDG	RFE33	RFE62	RFE62	RFE33	RFE33	RFE62	RFE62	RFE34	RFE34	RFE65	RFE65	1102860	1102860
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
DO	mg/L	N	NS	-	1.22	-	1.39	1.39	1.23	1.23	3.96	3.96	2.57	2.57	-	-
ORP	millivolts	N	NS	-	1	-	180	180	123	123	177	177	-57	-57	-	-
pH	pH Units	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	155000	-	150000	-	168000	-	188000	-	244000	-	290000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	410U	-	410U	-	410U	-	410U	-	410U	-	410U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	155000	-	150000	-	168000	-	188000	-	244000	-	290000	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	5.1J	-	4.9U	-	4.9U	-	4.9U	-	4.9U	-	10.2U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	43100	-	39400	-	15800	-	1000	-	74600	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	110	-	40U	-	40U	-	40U	-	920	-	40U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	620000	-	628000	-	770000	-	681000	-	400000	-	524000	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6
			Sample Date	11/10/2008	11/11/2008	06/02/2009	06/03/2009	11/19/2009	11/20/2009	04/28/2010	04/29/2010	09/20/2010	09/21/2010	06/22/2011	06/23/2011	11/21/2011
			Field Sample ID	P006A4	P006A4X	P006A5	P006A5X	P006A6	P006A6X	P006A7	P006A7X	P006A8	P006A8X	P006B1	P006B1X	P006B2
			SDG	1119533	1119533	1147599	1147599	1172227	1172227	RFS40	RFS40	RFS68	RFS68	RFT36	RFT36	RFT88
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9.34	-	9.29	-	9.31	-	6.26	1.38	3.98	0	7.76	2.08	4.38
DO	mg/L	N	NS	0	-	1.11	-	1.07	-	9.26	5.95	10.52	9.38	9.89	8.69	10.26
ORP	millivolts	N	NS	-79	-	-76	-	-59	-	-101	-76	-105	-130	-101	-23	-44
pH	pH Units	N	NS	6.63	-	6.25	-	6.07	-	6.23	6.15	6.72	6.15	6.56	6.45	6.53
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	10.0U	-	7.2U	-	7.2U	-	7.2U	-	9.8U	-	5.1U	-	5.1U
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6	P-6
			Sample Date	11/22/2011	03/27/2012	03/28/2012	08/15/2012	08/16/2012	02/26/2013	02/27/2013	09/25/2013	09/26/2013	03/27/2014	03/28/2014	11/11/2014	11/12/2014
			Field Sample ID	P006B2X	P006B3	P006B3X	P006B4	P006B4X	P006B5	P006B5X	P006B6	P006B6X	P006B8	P006B8X	P006B9	P006B9X
			SDG	RFT88	RFU32	RFU32	RFV29	RFV29	RFX80	RFX80	CS016	CS016	CS078	CS078	CS184	CS184
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.45	2.33	1.75	4.83	5.16	8.93	8.78	9.33	-	-	9.37	-	9.84
DO	mg/L	N	NS	8.89	10.82	9.13	9.98	8.81	6.2	1.89	0.63	-	6.28	2.13	2.54	18.35
ORP	millivolts	N	NS	3	-62	52	-146	-99	-117	-185	-351	-	-148	-269	-171	-71
pH	pH Units	N	NS	6.53	6.94	6.54	6.73	6.57	7.10	6.67	6.74	-	6.62	6.57	6.64	6.37
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	700U	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	292000	-	343000	-	322000	-	279000	-	309000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	700U	-	700U	-	700U	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	292000	-	343000	-	322000	-	279000	-	309000
Arsenic	ug/L	N	3	-	5.6J	-	14.5	-	6.7	-	7.9	-	12.7	-	7.9	-
Arsenic	ug/L	Y	3	-	-	-	11.7	-	3.5	-	6.9	-	0.78U	-	5.9	-
Benzene	ug/L	N	1	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	61200	-	25800	-	38900	-	28500	-	28500	-
Iron	ug/L	Y	300	-	-	-	53900	-	20100	-	38200	-	22100	-	20600	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	40U	-	190	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	210000	-	177000	-	218000	-	220000	-	36300
Sulfide	ug/L	N	NS	-	-	-	-	600U	-	960J	-	600U	-	600U	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	P-6	P-6	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02
			Sample Date	06/26/2015	06/26/2015	09/16/2003	09/21/2004	09/22/2004	05/26/2005	05/27/2005	05/27/2005	10/25/2005	10/26/2005	05/24/2006	05/25/2006	11/30/2006
			Field Sample ID	P006C1	P006C1X	RW02A1	RW02A2	RW02A2X	R002A3	R002A3X	R002A3X	R002A4	R002A4X	R002A5	R002A5X	R002A6
			SDG	CS255	CS255	RFE86	RFF25	RFF25	RFF56	RFF56	RFF57	964862	964862	991108	991108	1016343
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	9	9	-	5.55	-	5.9	-	-	-	-	-	-	-
DO	mg/L	N	NS	-0.58	-0.58	-	0.62	-	0.06	-	-	-	-	-	-	-
ORP	millivolts	N	NS	-78	-78	-	-101	-	-87	-	-	-	-	-	-	-
pH	pH Units	N	NS	6.67	6.67	-	6.48	-	6.57	-	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	220000	-	196000	-	-	218000	-	256000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	410U	-	410U	-	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	324000	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	700U	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	324000	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	11.5	-	4.9U	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	11.1	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	110	-	130	-	100	-	-	88	-	120	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	38200	-	19500	17500	-	13400	-	-	15300	-	15900	-	9340J
Iron	ug/L	Y	300	36900	-	-	17300	-	13200	-	-	14100	-	15800	-	7160J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	0.040U	-	-	-	40U	-	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	79900	-	-	1500U	-	6300J	-	-	18000	-	1500U	-
Sulfide	ug/L	N	NS	-	680U	-	-	530U	-	-	530U	-	600J	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02
			Sample Date	12/01/2006	05/14/2007	05/15/2007	08/12/2008	08/13/2008	05/26/2009	05/27/2009	06/22/2011	06/23/2011	03/14/2012	03/15/2012	02/25/2013	02/26/2013
			Field Sample ID	R002A6X	R002A7	R002A7X	R002A8	R002A8X	R002A9	R002A9X	R002B1	R002B1X	R002B2	R002B2X	R002B3	R002B3X
			SDG	1016343	1038388	1038388	1105279	1105279	1146548	1146548	RFT36	RFT36	RFU22	RFU22	RFX79	RFX79
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	6.08	-	5.71	-	2.03	1.58	1.94	0.8	4.08	4.07
DO	mg/L	N	NS	-	-	-	0	-	0	-	6.36	5.27	6.38	6.44	3.55	0.73
ORP	millivolts	N	NS	-	-	-	-134	-	-107	-	-82	-102	-60	-75	-209	-8
pH	pH Units	N	NS	-	-	-	6.32	-	6.09	-	6.57	7.19	6.68	6.25	6.57	6.60
Alkalinity to pH 4.5	ug/L	N	NS	164000	-	200000	-	251000	-	266000	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	161000
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	700U
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	161000
Arsenic	ug/L	N	3	-	-	-	10.2U	-	7.2U	-	5.1U	-	5.1U	-	0.54J	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	0.70J	-
Benzene	ug/L	N	1	100	-	190	-	200	-	170	-	210	-	61	-	41
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	16200	-	11600	-	14000	-	-	-	-	-	15200	-
Iron	ug/L	Y	300	-	15400	-	11300	-	13800	-	-	-	-	-	14900	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	40U	-	-	-	-	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	6200	-	3400J	-	2500U	-	5000U	-	-	-	-	-	2500U
Sulfide	ug/L	N	NS	530U	-	530U	-	720J	-	530U	-	-	-	-	-	600U

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02
			Sample Date	04/30/2013	04/30/2013	04/30/2013	06/18/2013	06/19/2013	03/12/2014	03/12/2014	03/12/2014	03/12/2014	03/12/2014	06/30/2014	06/30/2014	07/31/2014
			Field Sample ID	R002B4	R002B4	R002B4X	R002B5	R002B5X	D0312148	D0312148	R002B6	R002B6	R002B6X	R002B7	R002B7X	R002B8
			SDG	RFZ23	RFZ24	RFZ24	CP005	CP008	CP272	CP275	CP272	CP275	CP275	CP392	CP392	CP438
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	FD	FD	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.3	4.3	4.3	3.85	3.85	-	-	-	-	-	4.67	4.67	4.1
DO	mg/L	N	NS	4.82	4.82	4.82	2.73	6.72	-	-	-	-	-	0.04	0.04	0.33
ORP	millivolts	N	NS	-32.2	-32.2	-32.2	-112	-88	-	-	-	-	-	-260	-260	-104.2
pH	pH Units	N	NS	5.71	5.71	5.71	6.16	6.65	-	-	-	-	-	10.86	10.86	6.55
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	0.71J	-	0.92J	-	-	214	-	207	-	7.8	-	5.5
Arsenic	ug/L	Y	3	0.43J	-	-	0.59J	-	203	-	202	-	-	4.4	-	3.7
Benzene	ug/L	N	1	-	-	89	-	93	-	34	-	-	33	-	25	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	13100	-	29100	-	-	1900	-	1930	-	14700	-	10800
Iron	ug/L	Y	300	11200	-	-	27000	-	881	-	916	-	-	1240	-	7750
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	16200	-	4100J	-	49500	-	-	49700	-	58400	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-02	RW-11	RW-11	RW-11	RW-11
			Sample Date	07/31/2014	09/09/2014	09/10/2014	01/19/2015	01/19/2015	07/07/2015	07/07/2015	11/29/2017	11/29/2017	06/14/2005	06/15/2005	11/15/2005	11/16/2005
			Field Sample ID	R002B8X	R002B9	R002B9X	R002C1	R002C1X	R002C2	R002C2X	R002C9	R002C9X	R011A1	R011A1X	R011A2	R011A2X
			SDG	CP438	CS155	CS155	CP647	CP647	CP770	CP770	CQ908	CQ908	947574	947574	967750	967750
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.1	4.24	4.34	4	4	4.35	4.35	4.8	4.8	5	-	5.16	-
DO	mg/L	N	NS	0.33	0.14	0.15	0.47	0.47	4.23	4.23	3.62	3.62	0.76	-	0	-
ORP	millivolts	N	NS	-104.2	118	-431	-190	-190	-104	-104	-15.7	-15.7	-137	-	-206	-
pH	pH Units	N	NS	6.55	8.76	9.19	6.73	6.73	6.80	6.80	7.99	7.99	6.53	-	7.13	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	798000	-	1020000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	410U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	1160000	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	188000	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	1540000	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	13.6	-	3.6	-	23.7	-	1.2UJ	-	-	-	-	-
Arsenic	ug/L	Y	3	-	12.5	-	1.4J	-	29.8	-	0.72U	-	-	-	-	-
Benzene	ug/L	N	1	60	-	100	-	68	-	53	-	86J	-	0.5J	-	6
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	4510	-	9580	-	4570	-	1790	-	32500	-	26500	-
Iron	ug/L	Y	300	-	530	-	2260	-	2660	-	636	-	32900	-	27700	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	400U	-	-	-	-	-	-	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	8610000	-	4400000	-	15900000	-	37000	-	921000	-	3700J	-	1500U
Sulfide	ug/L	N	NS	-	-	3400	-	2300	-	-	-	-	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11	RW-11
			Sample Date	06/26/2006	06/27/2006	11/27/2006	11/28/2006	05/30/2007	05/31/2007	07/31/2008	08/01/2008	06/23/2009	06/24/2009	06/28/2010	06/29/2010
			Field Sample ID	R011A3	R011A3X	R011A4	R011A4X	R011A5	R011A5X	R011A6	R011A6X	R011A7	R011A7X	R011A8-100628	R011A8X-100629
			SDG	995245	995245	1015744	1015744	1040574	1040574	1103488	1103488	1150741	1150741	RFS51	RFS51
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	4.69	-	3.81	-	1.17	0
DO	mg/L	N	NS	-	-	-	-	-	-	0.3	-	0	-	8.14	7.21
ORP	millivolts	N	NS	-	-	-	-	-	-	-114	-	-84	-	-85	0
pH	pH Units	N	NS	-	-	-	-	-	-	6.26	-	6.63	-	7.29	0.00
Alkalinity to pH 4.5	ug/L	N	NS	-	687000	-	830000	-	638000	-	799000	-	540000	-	591000
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	1J	-	0.5U	-	0.5U	-	0.8J	-	1J	-	0.9J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	16100J	-	34500	-	15200	-	25600	-	4920	-	25500	-
Iron	ug/L	Y	300	16400J	-	31900	-	15700	-	25500	-	17100	-	25300	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	5400	-	6000U	-	2500U	-	5000U	-	5000U	-	10000U
Sulfide	ug/L	N	NS	-	530U	-	530U	-	530U	-	530U	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-11	RW-11	RW-11	RW-11	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21
			Sample Date	06/03/2011	02/14/2012	04/09/2013	06/03/2014	03/28/2002	09/27/2004	06/06/2005	06/07/2005	11/14/2005	11/15/2005	06/22/2006	06/23/2006	12/07/2006
			Field Sample ID	R011A9X	R011B1X	R011B2X	R011B3X	RW21A1	RW21A2	R021A3	R021A3X	R021A4	R021A4X	R021A5	R021A5X	R021A6
			SDG	RFT27	RFU10	RFY63	CS108	HPA07	RFF26	RFF58	RFF58	967531	967531	994921	994921	1017481
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0	-	-	-	-	4.75	4.25	-	4.57	-	-	-	-
DO	mg/L	N	NS	7.78	7.87	-	-	-	0.7	0.6	-	0	-	-	-	-
ORP	millivolts	N	NS	-103	-	-	-	-	-222	-95	-	-188	-	-	-	-
pH	pH Units	N	NS	6.05	-	-	-	-	6.30	6.54	-	6.56	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	221000	-	143000	-	212000	-	125000	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	410U	-	410U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	-	-	4J	-	9	-	3J	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	9540	7490	-	9820	-	8080J	-	8510J
Iron	ug/L	Y	300	-	-	-	-	-	9440	7100	-	9740	-	8110J	-	9890J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	400U	40U	-	170	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	3300J	-	6000U	-	1500U	-	4900J	-
Sulfide	ug/L	N	NS	-	-	-	-	-	540J	-	1000J	-	600J	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21	RW-21
			Sample Date	12/08/2006	05/22/2007	05/23/2007	05/23/2007	08/14/2008	08/15/2008	07/15/2009	07/16/2009	06/17/2010	06/18/2010	07/28/2011	03/28/2012
			Field Sample ID	R021A6X	R021A7	D0523071	R021A7X	R021A8	R021A8X	R021A9	R021A9X	R021B1-100617	R021B1X-100618	R021B2X	R021B3X
			SDG	1017481	1039652	1039652	1039652	1105739	1105739	1153802	1153802	RFS47	RFS47	RFT48	RFU32
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	FD	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	4.91	-	4.51	-	4.63	0	-	1.39
DO	mg/L	N	NS	-	-	-	-	0	-	1.53	-	4.49	4.45	-	4.69
ORP	millivolts	N	NS	-	-	-	-	-108	-	-69	-	-33	0	-	-13
pH	pH Units	N	NS	-	-	-	-	6.56	-	6.12	-	6.52	0.00	-	6.57
Alkalinity to pH 4.5	ug/L	N	NS	167000	-	656000	165000	-	137000	-	120000	-	102000	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	460U	-	460U	-	460U	-	460U	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	7	-	-	5	-	4J	-	2J	-	2J	3J	2J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	12300	-	-	8110	-	8610	-	9880	-	-	-
Iron	ug/L	Y	300	-	12600	-	-	7830	-	8300	-	9020	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	40U	-	40U	-	40U	-	40U	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	3400J	-	50000U	2500U	-	5100	-	2500U	-	2500U	-	-
Sulfide	ug/L	N	NS	530U	-	4200U	530U	-	530U	-	530U	-	530U	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-21	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31
			Sample Date	04/11/2013	06/15/2005	06/16/2005	11/17/2005	11/18/2005	06/12/2006	06/13/2006	12/04/2006	12/05/2006	06/14/2007	06/15/2007	08/14/2008	08/15/2008
			Field Sample ID	R021B4X	R031A1	R031A1X	R031A2	R031A2X	R031A3	R031A3X	R031A4	R031A4X	R031A5	R031A5X	R031A6	R031A6X
			SDG	RFY73	947746	947746	968194	968194	993388	993388	1016740	1016740	1042931	1042931	1105739	1105739
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.81	-	-	5.13	-	-	-	-	-	-	-	4.66	-
DO	mg/L	N	NS	3.23	-	-	0	-	-	-	-	-	-	-	0	-
ORP	millivolts	N	NS	-138	-	-	-189	-	-	-	-	-	-	-	-131	-
pH	pH Units	N	NS	6.54	-	-	7.18	-	-	-	-	-	-	-	6.72	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	214000	-	330000	-	263000	-	243000	-	149000	-	218000
Alkalinity to pH 8.3	ug/L	N	NS	-	-	410U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	5J	-	0.6J	-	0.5U	-	0.6J	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	21300	-	22100	-	51500J	-	23200	-	44000	-	23400	-
Iron	ug/L	Y	300	-	16600	-	22400	-	52500J	-	21300	-	39700	-	23200	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	4300J	-	7500U	-	3000U	-	3000U	-	5000U	-	5000U
Sulfide	ug/L	N	NS	-	-	530U	-	3000J	-	530U	-	530U	-	1100J	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
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3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-31	RW-33	RW-33	RW-33	RW-33
			Sample Date	06/25/2009	06/26/2009	06/30/2010	07/01/2010	08/04/2011	02/29/2012	03/19/2013	09/03/2014	06/15/2005	06/16/2005	11/17/2005	11/18/2005
			Field Sample ID	R031A7	R031A7X	R031A8-100630	R031A8X-100701	R031A9X	R031B1X	R031B2X	R031B3X	R033A1	R033A1X	R033A2	R033A2X
			SDG	1151128	1151128	RFS51	RFS51	RFT50	RFU14	RFY13	CS150	947746	947746	968194	968194
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	4.89	-	0	-	-	-	4.42	-	-	-	3.99	-
DO	mg/L	N	NS	0	-	5.43	-	7	5.11	-	-	-	-	0	-
ORP	millivolts	N	NS	-104	-	-114	-	-	-	-	-	-	-	-156	-
pH	pH Units	N	NS	6.13	-	7.90	-	-	-	-	-	-	-	6.79	-
Alkalinity to pH 4.5	ug/L	N	NS	-	185000	-	225000	-	-	-	-	-	258000	-	295000
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	-	-	-	-	410U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	0.6J	0.8J	0.5U	0.5U	-	1J	-	1U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	33200	-	24800	-	-	-	-	-	27700	-	17200	-
Iron	ug/L	Y	300	35800	-	23600	-	-	-	-	-	24700	-	17300	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	-	-	-	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	5000U	-	2500U	-	-	-	-	-	6000U	-	1500U
Sulfide	ug/L	N	NS	-	530U	-	530U	-	-	-	-	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33	RW-33
			Sample Date	06/08/2006	06/09/2006	12/04/2006	12/05/2006	06/14/2007	06/15/2007	08/21/2008	08/22/2008	06/15/2009	06/16/2009	06/04/2010	06/04/2010
			Field Sample ID	R033A3	R033A3X	R033A4	R033A4X	R033A5	R033A5X	R033A6	R033A6X	R033A7	R033A7X	R033A8-100604	R033A8X-100604
			SDG	993031	993031	1016740	1016740	1042931	1042931	1106759	1106759	1149447	1149447	RFS46	RFS46
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	-	3.84	-	3.59	-	1.04	1.04
DO	mg/L	N	NS	-	-	-	-	-	-	0	-	0	-	3.81	3.81
ORP	millivolts	N	NS	-	-	-	-	-	-	-146	-	-133	-	0	0
pH	pH Units	N	NS	-	-	-	-	-	-	7.03	-	6.84	-	0.00	0.00
Alkalinity to pH 4.5	ug/L	N	NS	-	276000	-	380000	-	357000	-	391000	-	362000	-	341000
Alkalinity to pH 8.3	ug/L	N	NS	-	460U	-	460U	-	460U	-	460U	-	460U	-	460U
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	0.5U	-	0.5U	-	0.7J	-	0.5U	-	0.5U	-	0.5U
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	20300J	-	13200	-	28800	-	14800	-	19200	-	21500	-
Iron	ug/L	Y	300	20700J	-	12100	-	29400	-	13800	-	19600	-	20400	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	40U	-	40U	-	40U	-	40U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	3000U	-	3000U	-	5000U	-	5000U	-	5000U	-	5000U
Sulfide	ug/L	N	NS	-	530U	-	530U	-	1100J	-	530U	-	530U	-	530U

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-33	RW-33	RW-33	RW-33	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34
			Sample Date	06/30/2011	02/29/2012	03/19/2013	09/03/2014	06/14/2005	06/15/2005	11/18/2005	11/18/2005	06/12/2006	06/12/2006	06/13/2006	06/13/2006	06/14/2007
			Field Sample ID	R033A9X	R033B1X	R033B2X	R033B3X	R034A1	R034A1X	R034A2	R034A2X	R034A3	R034A3	R034A3X	R034A3X	R034A5
			SDG	RFT38	RFU14	RFY13	CS150	947574	947574	968194	968194	1016155	993388	1016155	993388	1042931
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0	-	3.65	4.07	3.25	-	1.31	1.31	-	-	-	-	-
DO	mg/L	N	NS	4.01	4.23	1.2	-	0.6	-	0	0	-	-	-	-	-
ORP	millivolts	N	NS	0	-	-261	-	60	-	27	27	-	-	-	-	-
pH	pH Units	N	NS	0.00	-	6.52	-	6.19	-	6.05	6.05	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	87000	-	37800	-	-	293000	76800	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	410U	-	460U	-	-	460U	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	0.5U	0.5U	0.5U	0.5U	-	0.5U	-	0.5U	-	-	0.5U	1J	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	493	-	798	-	5780	298J	-	-	1240
Iron	ug/L	Y	300	-	-	-	-	38.1J	-	72.5J	-	6100	62.7J	-	-	1280
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	-	-	40U	-	40U	-	-	40U	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	6000J	-	15000U	-	-	4100J	12000	-
Sulfide	ug/L	N	NS	-	-	-	-	-	530U	-	2600J	-	-	530U	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-34	RW-35
			Sample Date	06/15/2007	08/12/2008	08/13/2008	06/15/2009	06/16/2009	06/04/2010	06/04/2010	08/18/2011	02/21/2012	03/19/2013	09/03/2014	06/22/2006
			Field Sample ID	R034A5X	R034A6	R034A6X	R034A7	R034A7X	R034A8-100604	R034A8X-100604	R034A9X	R034B1X	R034B2X	R034B3X	R035A1
			SDG	1042931	1105279	1105279	1149447	1149447	RFS46	RFS46	RFT60	RFU12	RFY13	CS150	994921
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	4.3	-	1.51	-	2.41	2.41	-	0.34	2.7	7.07	-
DO	mg/L	N	NS	-	0	-	0	-	6.59	6.59	6.17	6.16	-	-	-
ORP	millivolts	N	NS	-	-102	-	22	-	-51	-51	-11	38	-	-	-
pH	pH Units	N	NS	-	6.41	-	6.55	-	6.46	6.46	7.17	6.39	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	112000	-	295000	-	38000	-	60500	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	1J	-	0.5U	-	0.5U	-	0.5U	0.5U	0.5U	0.5U	0.5U	-
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	869	-	2010	-	648	-	-	-	-	-	33100J
Iron	ug/L	Y	300	-	709	-	52.2U	-	257	-	-	-	-	-	34100J
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	100	-	40U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	5300	-	12000J	-	7100	-	50000U	-	-	-	-	-
Sulfide	ug/L	N	NS	1300J	-	530U	-	530U	-	800J	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35	RW-35
			Sample Date	06/23/2006	12/06/2006	12/07/2006	06/14/2007	06/15/2007	08/18/2008	08/19/2008	07/08/2009	07/09/2009	07/01/2010	07/01/2010	06/30/2011
			Field Sample ID	R035A1X	R035A2	R035A2X	R035A3	R035A3X	R035A4	R035A4X	R035A5	R035A5X	R035A6-100701	R035A6X-100701	R035A7X
			SDG	994921	1017222	1017222	1042931	1042931	1106131	1106131	1152857	1152857	RFS51	RFS51	RFT38
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	-	2.59	-	3	-	1.17	1.17	0
DO	mg/L	N	NS	-	-	-	-	-	0	-	0	-	3.09	3.09	3.56
ORP	millivolts	N	NS	-	-	-	-	-	-142	-	-159	-	0	0	0
pH	pH Units	N	NS	-	-	-	-	-	6.82	-	6.55	-	0.00	0.00	0.00
Alkalinity to pH 4.5	ug/L	N	NS	606000	-	728000	-	650000	-	543000	-	476000	-	392000	-
Alkalinity to pH 8.3	ug/L	N	NS	460U	-	460U	-	460U	-	460U	-	460U	-	460U	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	210	-	58	-	160	-	79	-	31	-	65	6
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	35400	-	45600	-	28000	-	37500	-	15700	-	-
Iron	ug/L	Y	300	-	34500	-	39100	-	27800	-	33700	-	14800	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	40U	-	40U	-	40U	-	400U	-	40U	-	40U	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	6000U	-	6000U	-	10000U	-	10000U	-	10000U	-	2500U	-
Sulfide	ug/L	N	NS	530U	-	530U	-	2300	-	530U	-	530U	-	530U	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-35	RW-35	RW-35	RW-41	RW-41	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42
			Sample Date	02/21/2012	06/27/2013	09/03/2014	08/16/2013	09/11/2014	11/04/2002	09/28/2004	09/29/2004	06/01/2005	11/15/2005	11/16/2005	06/14/2006	06/15/2006
			Field Sample ID	R035A8X	R035A9X	R035B1X	R041A1	R041A2X	RW42A1	RW42A2	RW42A2X	R042A3	R042A4	R042A4X	R042A5	R042A5X
			SDG	RFU12	RFB21	CS150	CP076	CS154	LNA05	RFF26	RFF26	RFF57	967750	967750	993798	993798
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	0.48	-	3.84	1.09	0.36	-	8.05	-	8.22	8.32	-	-	-
DO	mg/L	N	NS	3.1	-	-	0.29	0.49	0	0.42	-	0.29	0	-	-	-
ORP	millivolts	N	NS	-69	-	-	-99.6	-365	0	-89	-	-103	-91	-	-	-
pH	pH Units	N	NS	6.75	-	-	7.01	7.15	-	6.32	-	6.86	6.27	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	73500	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	410U	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	300000	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	300000	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	-	-	-	1.1J	-	-	5J	-	10.8J	10.9J	-	10U	-
Arsenic	ug/L	Y	3	-	-	-	0.75J	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	13	45	49	0.5U	2	2J	-	0.5U	90	-	200	-	220
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	12800	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	12000	-	7200	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	40U	-	49J	-	40U	400U	-	40U	-	40U
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	1500U	-	150000U	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	600U	-	11000U	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42
			Sample Date	12/06/2006	12/07/2006	06/12/2007	06/12/2007	08/18/2008	08/19/2008	06/17/2009	06/17/2009	06/14/2010	06/15/2010	05/18/2011	05/19/2011
			Field Sample ID	R042A6	R042A6X	R042A7	R042A7X	R042A8	R042A8X	R042A9	R042A9X	R042B1-100614	R042B1X-100615	R042B2	R042B2X
			SDG	1017222	1017222	1042260	1042260	1106131	1106131	1149895	1149895	RFS47	RFS47	RFT23	RFT23
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	-	-	-	-	8.03	-	7.61	7.61	3.03	1.18	5.77	5.28
DO	mg/L	N	NS	-	-	-	-	0	-	0	0	9.34	7.91	8.93	7.93
ORP	millivolts	N	NS	-	-	-	-	-101	-	-66	-66	-57	-41	-133	28
pH	pH Units	N	NS	-	-	-	-	6.34	-	5.84	5.84	6.36	6.21	8.82	6.22
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	N	3	19.6J	-	10.0U	-	10.2U	-	10.8J	-	9.8U	-	9.8U	-
Arsenic	ug/L	Y	3	-	-	-	-	-	-	-	-	-	-	-	-
Benzene	ug/L	N	1	-	92	-	3J	-	17	-	32	-	3J	-	0.5J
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	Y	300	-	-	-	-	-	-	-	-	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	400U	-	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	-	-	-	-	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	RW-42	SP-EW-001	SP-EW-002	SP-EW-003	SP-EW-004
			Sample Date	02/27/2012	02/28/2012	03/21/2013	03/21/2013	08/12/2013	08/12/2013	09/03/2014	09/04/2014	07/28/2016	03/07/2014	03/07/2014	03/07/2014	03/07/2014
			Field Sample ID	R042B3	R042B3X	R042B4	R042B4X	R042B5	R042B5	R042B6	R042B6X	R042B9	E001A1	E002A1	E003A1	E004A1
			SDG	RFU13	RFU13	RFY20	RFY20	CP068	CP071	CS151	CS151	CQ206	CP268	CP268	CP268	CP268
			Sample Type	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			Sample Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Sample Purpose	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**	**Report Result**
DTW	Ft	N	NS	1.43	0.4	8.14	8.14	7.8	7.8	8.71	8.8	-	-	-	-	-
DO	mg/L	N	NS	10.55	8.52	0.06	0.06	3.6	3.6	1.07	-	-	-	-	-	-
ORP	millivolts	N	NS	-78	-18	-291	-291	-53.7	-53.7	43	-	-	-	-	-	-
pH	pH Units	N	NS	6.88	6.20	6.43	6.43	6.43	6.43	6.47	-	-	-	-	-	-
Alkalinity to pH 4.5	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity to pH 8.3	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-	-	-	114000	214000J-	-	-	144000	-	-	-	-	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-	-	-	700U	-	-	-	700U	-	-	-	-	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-	-	-	114000	214000J-	-	-	144000	-	-	-	-	-
Arsenic	ug/L	N	3	5.1U	-	3.5	-	14.4	-	13.4	-	8.4	-	-	-	-
Arsenic	ug/L	Y	3	-	-	1.6J	-	-	3.2	12.1	-	8.4	-	-	-	-
Benzene	ug/L	N	1	-	8	-	230	38J-	-	-	5	-	4J	5	9	88
Benzene	ug/L	Y	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	N	300	-	-	8300	-	28600	-	14200	-	21600	-	-	-	-
Iron	ug/L	Y	300	-	-	4020	-	-	-	13200	-	14500	-	-	-	-
Methane	ug/L	N	NS	-	-	-	-	7800J-	-	-	-	-	-	-	-	-
Nitrogen, Nitrate as N	ug/L	N	10000	-	-	-	76J	40UJ	-	-	40U	-	-	-	-	-
Sulfate	ug/L	N	NS	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	ug/L	N	250000	-	-	-	10000U	1500UJ	-	-	25000U	-	-	-	-	-
Sulfide	ug/L	N	NS	-	-	-	600U	600UJ	-	-	600U	-	-	-	-	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

Appendix B3 Main Yard
Historical Groundwater Parameter Data
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

			Location ID	SP-EW-005
			Sample Date	03/07/2014
			Field Sample ID	E005A1
			SDG	CP268
			Sample Type	GW
			Sample Matrix	WATER
			Sample Purpose	REG
Parameter Name	**Report Units**	**Filtered**	**NJDEP GWQS**	**Report Result**
DTW	Ft	N	NS	-
DO	mg/L	N	NS	-
ORP	millivolts	N	NS	-
pH	pH Units	N	NS	-
Alkalinity to pH 4.5	ug/L	N	NS	-
Alkalinity to pH 8.3	ug/L	N	NS	-
Alkalinity, Bicarbonate as CaCO3	ug/L	N	NS	-
ALKALINITY, PHENOLPHTHALEIN	ug/L	N	NS	-
Alkalinity, Total as CaCO3	ug/L	N	NS	-
Arsenic	ug/L	N	3	-
Arsenic	ug/L	Y	3	-
Benzene	ug/L	N	1	30
Benzene	ug/L	Y	1	-
Iron	ug/L	N	300	-
Iron	ug/L	Y	300	-
Methane	ug/L	N	NS	-
Nitrogen, Nitrate as N	ug/L	N	10000	-
Sulfate	ug/L	N	NS	-
Sulfate (SO4)	ug/L	N	250000	-
Sulfide	ug/L	N	NS	-

Notes:
1. GWQS - Groundwater Quality Standard
2. Shaded Indicates Exceedance of Criteria
3. - = No Criterion Available for the Analyte

APPENDIX C

Proposed MNA Sampling Plan

Appendix C Central Yard
Scope of Work for MNA
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

Well ID	Zone	CMI Completed	CMI Completion Date	CMI Planned	VOCs	Groundwater Stabilization	MNA Parameters
MW-103	Background	--	--	--	S	S	S
MW-183	Background	EISB	4/3/2014	ISS/ESS	S	S	S
MW-362	Background	--	--	--	S	S	S
MW-364	Background	--	--	--	S	S	S
MW-188	Downgradient	EISB	4/3/2014	ISS/ESS	Q	Q	Q
MW-190	Downgradient	Excavation LRM	9/9/2016 ongoing	--	Q	Q	Q
MW-230	Crossgradient	EISB	4/3/2014	ISS/ESS	Q	Q	Q
MW-147	MNA	Excavation LRM	9/9/2016 ongoing	--	Q	Q	Q
MW-217	MNA	EISB	4/3/2014	ISS/ESS	Q	Q	Q
MW-222	MNA	EISB	4/3/2014	ISS/ESS	Q	Q	Q
MW-438	MNA	ISS/ESS ISCO LNAPL	9/24/15 2/2/2017 Ongoing	--	Q	Q	Q
MW-509	MNA	ISS/ESS ISCO LNAPL	9/24/15 2/2/2017 Ongoing	--	Q	Q	Q
MW-518	MNA	EISB	4/3/2014	ISS/ESS	Q	Q	Q
MW-0056R	MNA	Excavation LRM	9/9/2016 ongoing	--	Q	Q	Q

Notes:
Q = Quarterly from 1Q 2019 through 4Q 2020, then biennial.
S = Semiannual from 1Q 2019 through 4Q 2020, then biennial.

X = Semiannual until CM Implementation is complete, then quarterly through 4Q 2020, then biennial.

Appendix C East Yard
Scope of Work for MNA
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

Well ID	Zone	CMI Completed	CMI Completion Date	CMI Planned	VOCs	Groundwater Stabilization	MNA Parameters
MW-14	Background	--	--	--	S	S	S
MW-153	Background	--	--	--	S	S	S
MW-381	Background	--	--	--	S	S	S
MW-148	Downgradient	--	--	--	Q	Q	Q
MW-172	Downgradient	--	--	--	Q	Q	Q
MW-253	Downgradient	--	--	ISCO ISCF	Q	Q	Q
MW-257	Downgradient	--	--	ISCF	Q	Q	Q
MW-0043	Crossgradient	--	--	--	Q	Q	Q
MW-144	MNA	--	--	ISCO ISCF	Q	Q	Q
MW-149	MNA	--	--	ISCO ISCF	Q	Q	Q
MW-227R	MNA	--	--	--	Q	Q	Q
MW-256	MNA	ESS LNAPL	10/10/2016	--	Q	Q	Q
MW-282	MNA	ERH ISCO	10/1/2014 ongoing	ISCF	Q	Q	Q
MW-288	MNA	ERH ISCO	10/1/2014 ongoing	ISCF	Q	Q	Q
MW-289	MNA	ERH ISCO	10/1/2014 ongoing	ISCF	Q	Q	Q
MW-329R	MNA	ESS ISCO LNAPL	2016 8/2013 NFA 2017	--	Q	Q	Q
MW-347	MNA	ISCO	12/10/2015	--	Q	Q	Q
MW-386R	MNA	ISS/ESS ISCO	6/3/2016 2015	--	Q	Q	Q
MW-443	MNA	Excavation/ISS	8/11/2016	--	Q	Q	Q
MW-446R	MNA	Excavation/ISS	8/11/2016	--	Q	Q	Q
MW-455	MNA	--	--	--	Q	Q	Q
MW-465	MNA	Excavation/ISS	8/11/2016	--	Q	Q	Q
MW-504	MNA	ESS ISCO LNAPL	2016 8/2013 NFA 2017	--	Q	Q	Q

Appendix C East Yard
Scope of Work for MNA
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

Well ID	Zone	CMI Completed	CMI Completion Date	CMI Planned	VOCs	Groundwater Stabilization	MNA Parameters
MW-512	MNA	Excavation	1/15/2018		Q	Q	Q
MW-296	CM Impelemtation	Excavation/ISS	8/11/2016	--	X	X	X
MW-317R	CM Impelemtation	ERH ISCO	10/1/2014 ongoing	ISCF	X	X	X
MW-331	CM Impelemtation	ERH ISCO	10/1/2014 ongoing	ISCF	X	X	X
MW-400	CM Impelemtation	Excavation	1/15/2018	--	X	X	X
MW-401R	CM Impelemtation	Excavation	1/15/2018	--	X	X	X
MW-449	CM Impelemtation	ERH ISCO	10/1/2014 ongoing	ISCF	X	X	X
MP-01R	CM Impelemtation	ESS ISCO LNAPL	2016 8/2013 NFA 2017	--	X	X	X

Notes:
Q = Quarterly from 1Q 2019 through 4Q 2020, then biennial.
S = Semiannual from 1Q 2019 through 4Q 2020, then biennial.

X = Semiannual until CM Implementation is complete, then quarterly through 4Q 2020, then biennial.

Appendix C Main Yard
Scope of Work for MNA
Monitored Natural Attenuation
Implementation Work Plan
Chevron Perth Amboy Facility

Well ID	Zone	CMI Completed	CMI Completion Date	CMI Planned	VOCs	Groundwater Stabilization	MNA Parameters
MW-133	Background	LRMs	Ongoing	LRMs	S	S	S
MW-314	Background	ISS	12/3/2015	--	S	S	S
MW-354	Background	--	--	--	S	S	S
MW-5	Down-gradient	--	--	ISCO	Q	Q	Q
MW-20	Down-gradient	ISS	11/7/2016	--	Q	Q	Q
MW-0032	Down-gradient	--	--	ISCO	Q	Q	Q
MW-0034	Down-gradient	ISS/ESS	6/23/2016	ISCO	Q	Q	Q
MW-164	Down-gradient	ISS	11/7/2016	--	Q	Q	Q
MW-201	Down-gradient	--	--	--	Q	Q	Q
MW-203	Down-gradient	--	--	--	Q	Q	Q
MW-324	Down-gradient	--	--	--	Q	Q	Q
MW-114	Crossgradient	ISS	11/7/2016	--	Q	Q	Q
MW-281	Crossgradient	--	--	--	Q	Q	Q
MW-13	MNA	ISS	11/7/2016	--	Q	Q	Q
MW-118	MNA	ISS/ESS	10/14/2015	ISCO	Q	Q	Q
MW-135	MNA	ISS/ESS	9/22/2017	--	Q	Q	Q
MW-158	MNA	ISS/ESS	9/22/2017	--	Q	Q	Q
MW-263	MNA	--	--	ISCO	Q	Q	Q
MW-264	MNA	LRMs	Ongoing	ISCO	Q	Q	Q
MW-338	MNA	ISCO LRMs	Ongoing Ongoing	ISCO LRMs	Q	Q	Q
MW-374	MNA	--	--	ISCO	Q	Q	Q
MW-397	MNA	ESS	11/22/2016	--	Q	Q	Q
MW-405	MNA	ISS/ESS	8/9/2016	ISCO	Q	Q	Q
MW-407	MNA	ISS	11/7/2016	--	Q	Q	Q
MW-474	MNA	--	--	--	Q	Q	Q
MW-0029	CM Impelemtation	--	--	ISCO ISS	X	X	X
MW-125	CM Impelemtation	ISS/ESS	3/3/2016	ISCO	X	X	X
MW-207	CM Impelemtation	ISS/ESS	8/9/2016	ISCO	X	X	X
MW-233	CM Impelemtation	ISCO LRMs	Ongoing Ongoing	ISCO LRMs	X	X	X
MW-259	CM Impelemtation	Excavation	12/22/2017	--	X	X	X
MW-265	CM Impelemtation	LRMs	Ongoing	ISCO	X	X	X
MW-376	CM Impelemtation	--	--	--	X	X	X
MW-378	CM Impelemtation	ISCO LRMs	Ongoing Ongoing	ISCO LRMs	X	X	X
MW-396	CM Impelemtation	ESS	11/22/2016	--	X	X	X
MW-406	CM Impelemtation	ISS	11/7/2016	--	X	X	X
MW-521	CM Impelemtation	ISS/ESS	9/22/2017	--	X	X	X

Notes:
Q = Quarterly from 1Q 2019 through 4Q 2020, then biennial.
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