DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA725)
Current Human Exposures Under Control

Facility Name:	Flint West (former Building 9) - 12990
Facility Address:	North of Glenwood Street and West of Stevens Street, Flint, Genesee County, Michigan
Facility EPA ID #:	MID 005 356 654

1. Has all available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination?

X If yes - check here and continue with #2 below.

If no - re-evaluate existing data, or

If data are not available skip to #6 and enter (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of Current Human Exposures Under Control EI

A positive Current Human Exposures Under Control EI determination (YE status code) indicates that there are no unacceptable human exposures to contamination (i.e., contaminants in concentrations in excess of appropriate risk- based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all contamination subject to RCRA corrective action at or from the identified facility (i.e., Site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA. The Current Human Exposures Under Control EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration/Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

Site Background:

Site Background

The Flint West RACER site (formerly known as Building 9) consists of approximately five acres of land located west of Stevens Street and north of Glenwood Avenue in Flint, Genesee County, Michigan (Figure 1). The Site is bordered by former industrial automotive manufacturing facilities to the north and west (sometimes referred to as the Chevy-in-the-Hole property, now owned by the City of Flint). Previously, there had been railroad tracks along the north-north western side of the Site between Building 9 and the Chevy-in-the-Hole property. To the east of the Site is Stevenson Street and directly south is a parking lot.

Flint West was formerly a manufacturing plant that produced intake and exhaust engine valves. Areas investigated are a former chrome plating area, a former TCE degreaser unit, a stained gravel area and a storm water sump. Currently, the Site is developed with a Consumers Energy electrical substation in the central portion. Almost the entire Site consists of concrete pavement, remaining after the demolition of a former manufacturing building. The majority of the Site is secured with a locked chain-link fence.

2. Are groundwater, soil, surface water, sediments, or air media known or reasonably suspected to be "contaminated"[1] above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	YES	NO	Rationale/Key Contaminants
Groundwater	X		Arsenic, Chromium,Selenium, Mercury, Phenanthrene, and select CVOCs exceed GSI and/or DW criteria
Air (Indoors)	X		TCE in subsurface soil exceed non residential indoor air inhalation criteria.
Surface Soil (< 2ft)		X	Only a very small portion of the Site in unpaved.
Surface Water	X		CVOCs and Metals in soil and groundwater exceed the GSI criteria.
Sediment		X	Soil erosion is not anticipated due to extensive pavement and no sediment is present on-Site.
Subsurface soil (>2 ft)	X		Mercury, naphthalene, benzene, Phenanthrene and select CVOCs exceed the DW and/or GSI criteria.
Air (Outdoors)	X		Trichloroethene exceeds the infinite source GRCC ambient air inhalation limit for residential and non-residential uses.

Notes:

- GSI = Groundwater to Surface Water Interface
- DW = Drinking Water
- GRCC = Generic Residential Cleanup Criteria
- [1]Contamination and contaminated describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk- based levels (for the media, that identify risks within the acceptable risk range).

If no (for all media) - skip to #6, and enter YE status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

If unknown (for any media) - skip to #6 and enter "IN' status code.

Groundwater:

Geology/Hydrogeology

The geology beneath the site was characterized during the installation of soil borings and monitoring wells, see Figure 2. The surface fill consists of concrete, coal and metal shavings. Below the fill layer there are sands with some clay lenses and silty sand deposits and a clay till layer approximately 20 below ground surface (bgs). The approximate depth to groundwater in the monitoring wells at the site is 15 feet. The predominant direction of groundwater flow is to the north/northwest, toward the Flint River, which is the major groundwater discharge point in the area see, Figure 3. The Flint River is located approximately 1/10th of a mile to the north-northwest of the Site. The Flint River is controlled and contained within a concrete channel constructed in 1966 and 1967 by the United States Army Corp of Engineers (USACE). The channel consists of concrete on the sides and bottom although the groundwater is in connection with surface water through a series of ports through the concrete side walls.

Groundwater Use

The native clay and till in the Flint vicinity are not useable as an aquifer and according to the Genesee County Health Department, there have been no potable water wells drilled to tap the glacial drift at least since 1967, when records were first required. In addition, Michigan Department of Public Health regulations require potable wells to be cased to a minimum of 25 ft bgs (Rule 818). Personnel from the City of Flint Water Services state that hookup to City water is mandatory within City Limits.

There are 14 monitoring wells on-site drilled to a depth of 15 - 25 feet below ground surface (bgs) and using a 10 foot well screen. Six monitoring wells saw results above screening levels, on sampling conducted on April 28-30, 2015, see Figure 4. Monitoring well 109S saw the highest impacts on site, including the highest elevation of chlorinated solvents. Groundwater samples indicate Drinking Water (DW) and Groundwater/Surface Water Interface (GSI) criteria exceedances, no other criteria are exceeded in groundwater.

Table 1: On-site Groundwater Data Evaluation

Groundwater Well ID	Constituent	Maximum Result	Drinking Water MCL	GSI Criteria (MDEQ)	Indoor air inhalation
MW-105S	Selenium (total)	**9**	50	5	N/A
MW-112S	Arsenic (total)	**277**	10	10	N/A
MW-106S	Chromium (total)	**58,300**	100	160	N/A
MW-106S	Copper (total)	**306**	1000	20	N/A
MW-106S	Lead (total)	**26**	4	44	N/A
MW-101S	Mercury	**0.4**	2	0.1	ID
MW-105S	Tetrachloroethane	**69**	5	60	460
MW-109S	Trichloroethene	**138**	5	200	41
MW-109S	Vinyl Chloride	**21**	2	13	52

*All results in ug/L

Surface/Subsurface Soil:

22 soil boring locations were drilled around the site in areas to determine where SWMUs and AOCs may have had potential releases to soils. See Figure 2 attached.

Cleanup criteria used for comparison are the Generic Residential and Non-Residential Cleanup Criteria presented in the MDEQ "Operational Memorandum #2, Attachment 1," updated September 28, 2012. The Cleanup Criteria are final published values and include the lowered thresholds for air inhalation protection.

Table 2: On-site Subsurface Soil Data Evaluation

Soil Boring	Constituent	Result	Non Residential Drinking Water	GSI Criteria (MDEQ)	Volatile soil Inhalation Criteria	Direct Contact	Indoor air Inhalation Criteria
SB-116 (12-13')	Vinyl Chloride	**260**	40	260	29,000	34,000	2800
SB-116 (12-13')	Cis 1,2 dichloroethene	**2,160**	1,400	12,000	210,000	8000,000	41,000
SB-104 (16-17')	Benzene	**210**	100	4000	45,000	840,000	8,400
SB-118 (16-17')	Vinyl Chloride	**250**	40	260	29,000	34,000	
SB-118 (16-17')	Cis 1,2 dichloroethene	**11,960**	1,400	12,000	210,000	8000,000	
SB-114 (20-21')	Trichloroethene	**1220**	100	4,000	14,000	660,000	
SB-114 (7-8')	Phenanthrene	**2700**	56,000	2100	190,000	5200,000	5100000
SB-121 (23-24')	Vinyl Chloride	**110**	40	260	29,000	34,000	
SB-121 (23-24')	Cis 1,2 dichloroethene	**2,970**	1,400	12,000	210,000	8000,000	
SB-121 (23-24')	Trichloroethene	**400**	100	4,000	14,000	660,000	
SB-122 (15-16')	Cis 1,2 dichloroethene	**1,600**	1,400	12,000	210,000	8000,000	
SB-122 (15-16')	Trichloroethene	**14,400**	100	4,000	14,000	660,000	1900
SB-112(3.5-4.5')	Vinyl Chloride	**80**	40	260	29,000	34,000	2800
SB-112(3.5-4.5')	Napthalene	**840**	35,000	730	210,000	150000000	4700000
SB-117 (18-19')	Trichloroethene	**5,980**	100	4,000	14,000	660,000	1900
SB-102 (6-7')	Trichloroethene	**330**	100	4,000	14,000	660,000	1900
SB-109 (10-11')	Mercury	**327**	1,700	**50**	62,000	580,000	89,000

*All results in ug/Kg

Rationale and Reference(s):

In reference to the above Subsurface Soil Table:

- Trichloroethene was found (in soil but not groundwater) above the indoor air criteria for residential and non-residential uses on a limited portion of the Site. There are no buildings proximate to this area.
- Mercury, Chromium, naphthalene, benzene, phenanthrene and select CVOCs exceed the DW and/or GSI criteria. Soil direct contact criteria are not exceeded.
- Soil concentrations on a limited portion of the Site exceed the residential and non-residential infinite source and the residential 5m source thickness criteria for ambient air inhalation protection. Particulate soil inhalation criteria are not exceeded.
- The 5m source thickness for the non-residential criterion is not exceeded. Impacts have been found to be less than 5m in total thickness.

3. Are there complete pathways between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential **Human Receptors** (Under Current Conditions)

"Contaminated" Media	Residents	Workers, Day Care	Construction	Trespassers	Recreation	Food *
Groundwater	No	No	**Yes**	No	No	No
Air (Indoors)	No	**yes**	No	No	No	No
~~Surface Soil (< 2ft)~~						
Surface Water	**Yes**	No	No	No	**Yes**	No
~~Sediment~~						
Subsurface soil (>2 ft)	No	No	Yes	No	No	No
Air (Outdoors)	No	No	**Yes**	**Yes**	No	No

*Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors spaces for Media which are not contaminated as identified in #2 above.

2. Enter yes or no for potential completeness under each Contaminated Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential Contaminated Media - Human Receptor combinations (Pathways) do not have check spaces (____). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

If ____ no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

If yes continue after **X** (pathways are complete for any "Contaminated" Media - Human Receptor combination) - providing supporting explanation.

If unknown "IN" status ____ (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter code.

Rationale and Reference(s):

Groundwater – There are exceedances of the GSI and drinking water criteria for metals and VOCs and these may represent a complete exposure pathway due the current use of the Flint River as a drinking water source for the City of Flint. The Flint River is at a distance of over 600 feet to the northwest and groundwater from the Flint West site flows in that direction.

The adjacent site down gradient to groundwater flow is the "Chevy in the Hole" (aka Chevy Commons) site owned by the City of Flint. Results from that site indicate metals and VOCs at decreased levels, yet still exceeding GSI and drinking water criteria at monitoring wells adjacent to the Flint River.

However, drinking water pathway is not complete for residents or workers due to the availability of drinking water not impacted by the site activities. The intakes from the Flint River for municipal drinking water are approximately 3.75 miles upstream from the site. In addition, no drinking water wells are located in the area, and local well permit requirements prevent installation of drinking water wells in the area.

Metals and volatiles in groundwater exceed the drinking water and GSI criteria. Groundwater is found at a depth of 15 ft below ground. During redevelopment or utility work, exposure may occur during excavation activities. Potentially complete exposure pathways for a construction worker may include: incidental ingestion and dermal contact with ground water and inhalation of chemicals through volatilization.

Subsurface soil: Trichloroethylene in soil at location SB -123 exceeds the outdoor air inhalation criteria. The inhalation, ingestion and dermal contact pathway is potentially complete for construction workers and trespassers.

Surface Water: Few metals and chlorinated volatiles in soil and groundwater exceed the MDEQ Groundwater/Surface Water Interface criteria (GSI). The contaminant levels continue to exceed the GSI at Chevy in the Hole (aka Chevy Commons), a site downgradient to Flint West and adjacent to the Flint River. The resident and recreational receptor exposure pathway to Flint River is complete due to the exceedance of metals and VOCs over the GSI criteria.

Indoor Air : There are two structures on the site that are associated with the electric substation that house equipment. Trichlorethylene in soil and groundwater exceeded the indoor air inhalation criteria at few locations on-site. The volatiles from soil and groundwater may be trapped with in the building. Therefore, a complete exposure pathway exists for maintenance workers who may visit the building at regular intervals.

Outdoor air: Trichloroethylene in soil at location SB -123 exceeds the outdoor air inhalation criteria. The inhalation pathway is potentially complete for construction workers and trespassers.

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **significant**[4] (i.e., potentially unacceptable because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable levels (used to identify the contamination); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable levels) could result in greater than acceptable risks)?

X If no (exposures cannot be reasonably expected to be significant (i.e., potentially unacceptable) for any complete exposure pathway) - skip to #6 and enter YE status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to contamination (identified in #3) are not expected to be **significant.**

If yes (exposures could be reasonably expected to be significant (i.e., potentially unacceptable) for any complete exposure pathway) - continue after providing a description (of each potentially unacceptable exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to contamination (identified in #3) are not expected to be significant.

If unknown (for any complete pathway) - skip to #6 and enter IN status code.

Rationale and Reference(s):

Groundwater: TCE and chromium in groundwater pose risk to construction workers who may be exposed to soil gas vapors or direct contact with water during excavation activities. The potentially complete exposure pathways for construction workers of incidental ingestion, dermal contact and inhalation is mitigated by the Health and safety policies and procedures employed at the facility to protect against unacceptable human exposures. Health and safety policies and procedures ensure that appropriate measures are taken for personnel protection should such subsurface activity encounter impacted soils or groundwater (e.g., PPE).

Surface Water – There is groundwater flow off-site of the VOCs and potentially metals from the Flint West site to the wells downgradient on the "Chevy in the Hole" site. The following table provides a comparison of contaminant levels found in groundwater monitoring wells adjacent to the Flint River against MDEQ GSI and Surface Water screening criteria for Non-drinking water. Although the on-site monitoring well 106S showed significantly elevated levels of chromium in groundwater, the monitoring wells downgradient and closer to the river did not show any exceedance of pathway specific screening criteria except for arsenic and mercury.

Table 3: Off-site Groundwater Data Evaluation

Groundwater Well ID	Constituent	Maximum Result	**Surface Water Human Health Non-Drinking	GSI Criteria (MDEQ)
CITH MW-9S	Arsenic (total)	**44**	10 - HCV	10
CITH MW-9D	Lead (total)	4.2	190 - MNV	44
CITH MW-9S	Mercury	**0.004**	0.0018- HNV	0.1
CITH MW-4	Trichloroethene	110	370 -HCV	200
CITH PZ-4	Vinyl Chloride	2.7	13 - HCV	13

*All results in ug/L
**MDEQ Rule 57 Water Quality Values-Surface Water Section MDEQ.
HNV – Non-cancer risk ; HCV – Cancer risk

Indoor Air : A small area of the facility exceeds non-residential indoor air inhalation protection criteria for trichloroethylene in groundwater and subsurface soil. This area of is located outdoors and is isolated from any buildings. Although the TCE levels in ground water may pose risk due to indoor vapor intrusion, the risk is considered to be insignificant due to the reduced frequency of worker exposure. The two buildings with in the facility and above the groundwater plume are mainly used for storage and maintenance area for an electrical substation. The maintenance workers are expected to visit 4 times a year and spend less than 1 hour during each visit. No trespassers are expected to enter in to the building, since the site is fenced and building is locked.

Outdoor air: Most of the constituents in the subsurface soil do not exceed MDEQ's infinite source volatile soil inhalation criteria. Trichloroethylene at a concentration of 14.4 ppm at a depth of 15-16 bgs slightly exceeded the industrial worker outdoor inhalation criterion at 14.0 ppm. Since the site is inactive, potentially complete pathway exists only for trespassers and construction workers. The direct contact screening criterion for industrial workers exposed to TCE in soil is 660 ppm. Therefore the level of TCE in soil upon volatilization in to ambient air do not pose significant risk to construction workers or trespassers through inhalation pathway.

5. Can the "significant" **exposures** (identified in #4) be shown to be within **acceptable** limits?

X If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

___ If no (there are current exposures that can be reasonably expected to be "unacceptable")- continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

___ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

Rationale and Reference(s):

Surface Water – The discharge of contaminated groundwater into surface water is likely to be insignificant if the maximum concentration of each contaminant discharging into surface water is less than 10 times their appropriate groundwater level.

The maximum concentration of Arsenic in well CITH MW-9S discharging to the surface water is less than 10 times the appropriate groundwater level based on GSI criteria as well as surface water exposure criteria (i.e., 100 µg/l). Additionally, the maximum concentration of mercury in well CITH MW-9S discharging to the surface water is less than 10 times the surface water screening criteria (i.e., 0.018 ug/l). There are no other conditions, which significantly increase the potential for unacceptable impacts to surface water, sediments, or ecosystems at this concentration. Therefore, it is concluded that the discharge of contaminated groundwater is likely to be insignificant.

6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

X YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the Flint West Industrial Land – 12990 facility, EPA ID No. MID 005 356 654, located in Flint, Michigan under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

___ NO - "Current Human Exposures" are NOT "Under Control."

___ IN - More information is needed to make a determination.

Completed by	(signature)		Date	9/28/15
	(print)	Christopher J Black		
	(title)	Environmental Scientist		

Supervisor	(signature)		Date	10/7/15
	(print)	Tammy Moore		
	(title)	Section Chief		
	(EPA Region or State)	EPA Region 5		

Locations where References may be found:
RCRA 7th Floor File Room, EPA Region 5 Office, 77 W. Jackson Blvd., Chicago, IL

Contact telephone and e-mail numbers

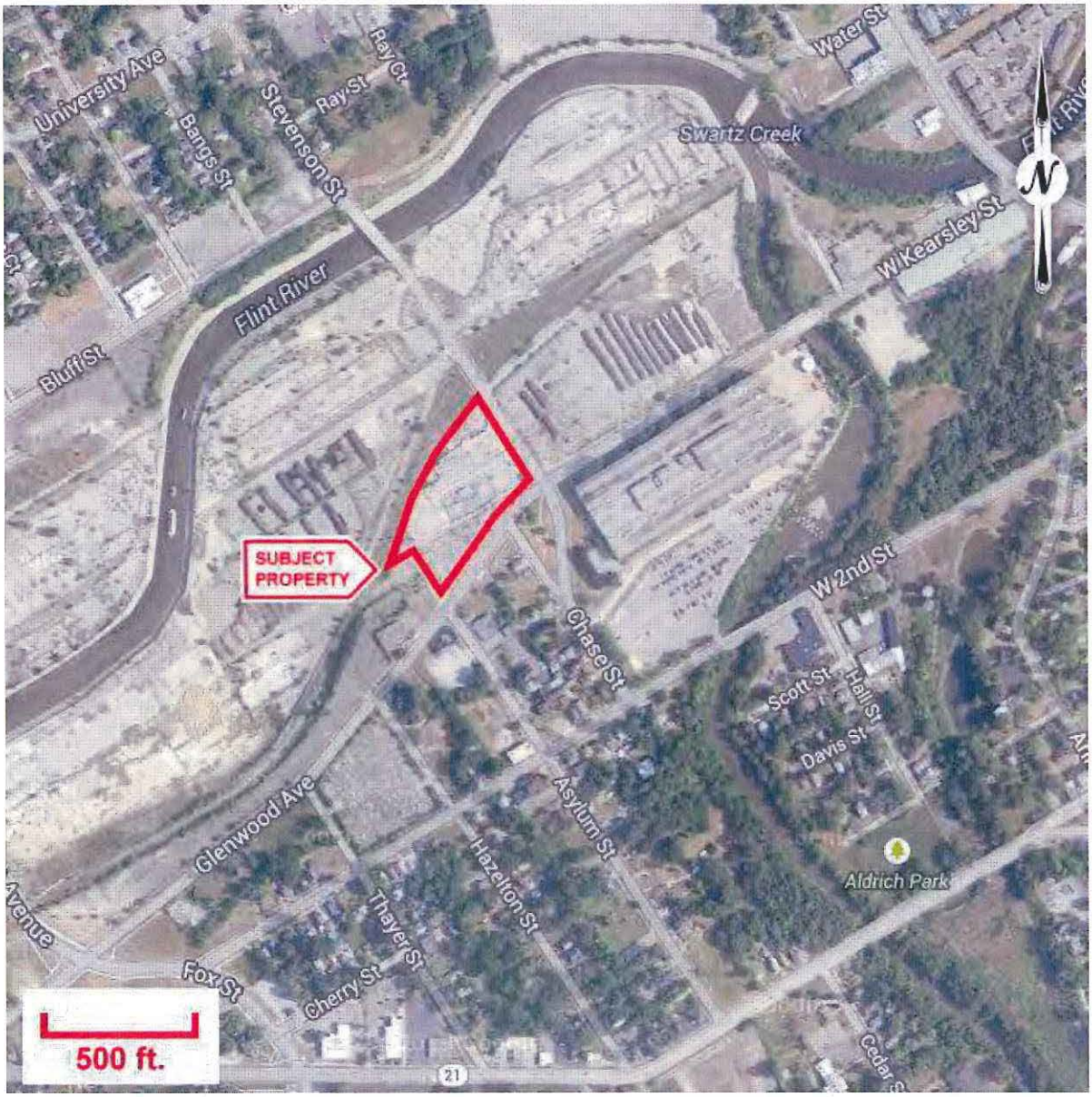
(name)	Christopher J Black
(phone #)	(312) 886-1451
(e-mail)	black.christopher@epa.gov

FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

SITE LOCATION MAP

RACER Flint West

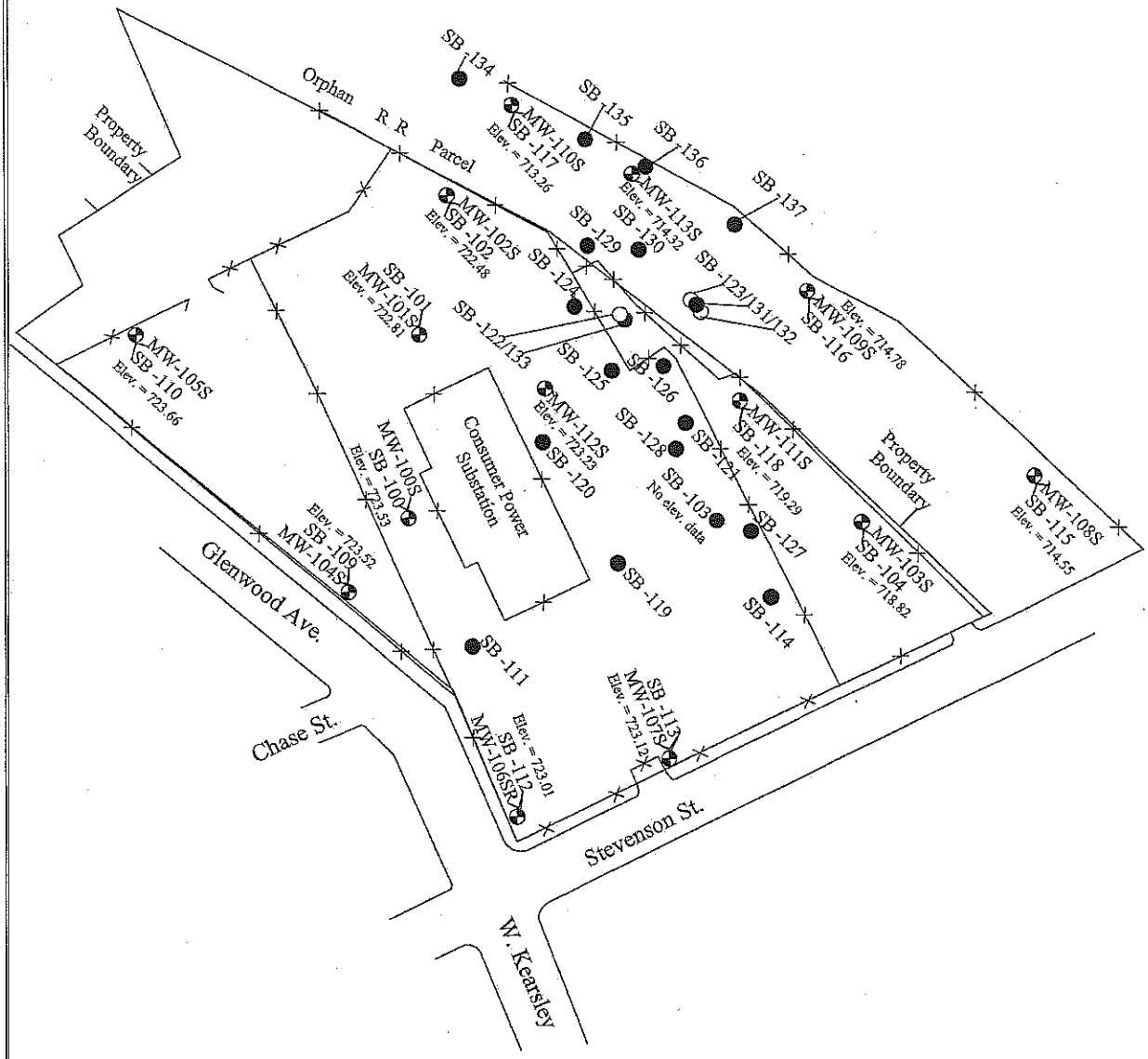
FIGURE	DATE	SCALE	PROJECT No.
1	2014	As Shown	11-4317-102



Source: United States Geological Survey | Property outline is approximate.

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

G-4300 South Saginaw Street
Burton, Michigan 48529
(810) 715-2525
FAX (810) 715-2526
www.AppliedEcoSystems.com

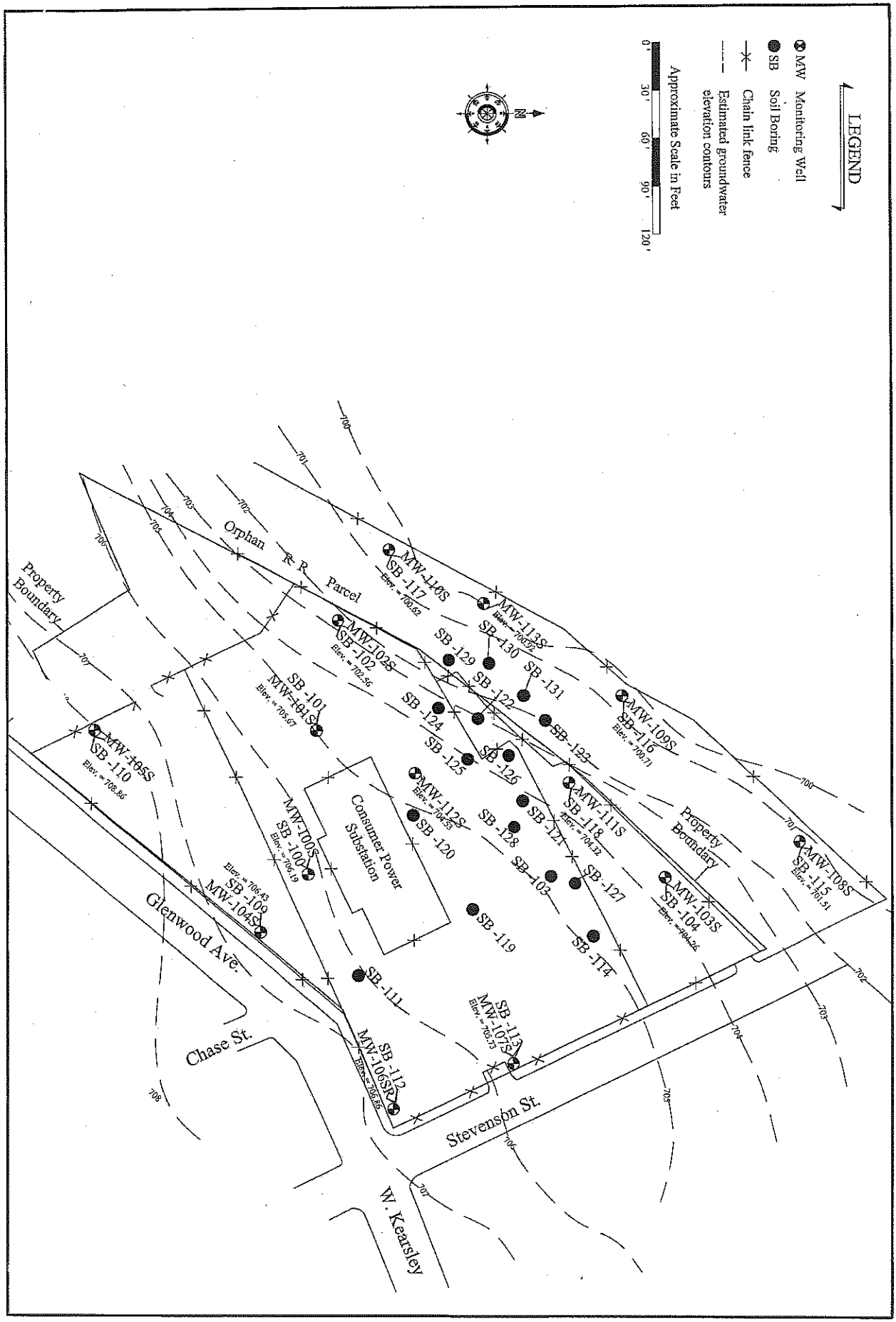


Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: 810.715.2525; Fax: 810.715.2526

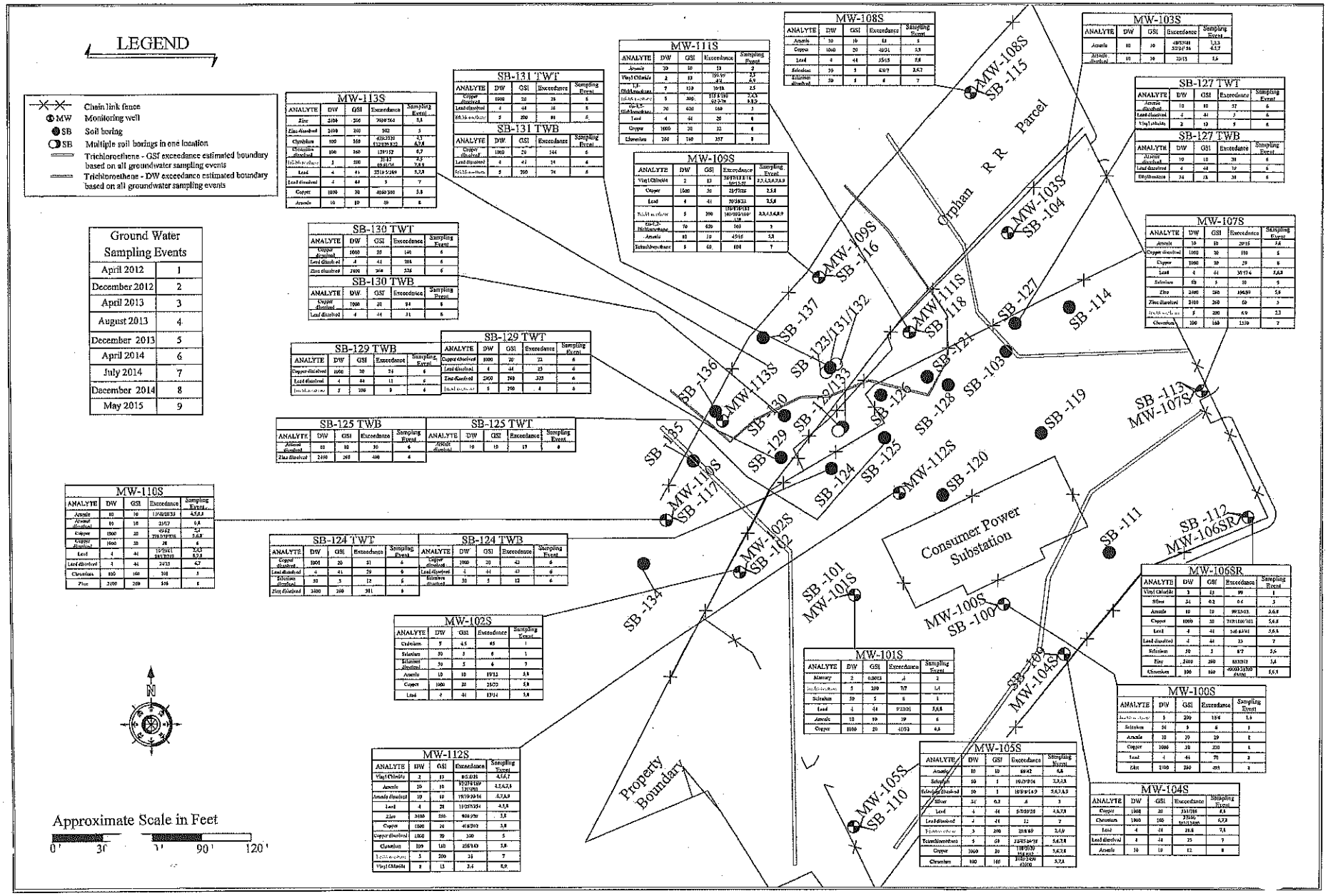
Soil Boring and Well Location Map

Racer Flint West - 12990
Flint West Industrial Land, Flint, MI

DATE:	SCALE:
2015	As Shown
PROJECT:	FIGURE:
11-4317-102	2



Applied EcoSystems, Inc. Environmental Management, Consulting & Field Services G-4300 South Saginaw Street, Burton, Michigan 48529 Phone: 810.715.2525; Fax: 810.715.2526	***Groundwater Contour Map*** ***May 2015*** Racer Flint West - 12990 Flint West Industrial Land, Flint, MI	DATE: 2015	SCALE: As Shown
		PROJECT: 11-4317-102	FIGURE: 3



ANALYTE	DW	GSI	Exceedance	Sampling Event
Zinc	2400	260	2600/564	3,8
Zinc dissolved	2400	260	302	3
Chromium	100	160	420/320 / 320/320/320	4,7
Chromium dissolved	100	160	120/172	6,7
Trichloroethene	5	200	21/14	2,4,5
Lead	4	44	25/10/5200	5,7,8
Lead dissolved	4	44	5	7
Copper	1000	20	4160/310	5,8
Arsenic	10	10	30	8

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	20	6
Lead dissolved	4	44	10	6
Trichloroethene	5	200	88	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	144	6
Lead dissolved	4	44	14	6
Trichloroethene	5	200	76	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	140	6
Lead dissolved	4	44	201	6
Zinc dissolved	2400	260	324	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	94	6
Lead dissolved	4	44	31	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	24	6
Lead dissolved	4	44	13	6
Trichloroethene	5	200	9	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	22	6
Lead dissolved	4	44	23	6
Zinc dissolved	2400	260	323	6
Trichloroethene	5	200	4	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic dissolved	10	10	30	6
Zinc dissolved	2400	260	400	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic dissolved	10	10	17	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	17/14/10/33	4,5,6
Arsenic dissolved	10	10	21/17	6,8
Copper	1000	20	49/62 / 770/1170/770	5,7
Copper dissolved	1000	20	28	6
Lead	4	44	10/19/41 / 44/19/20	2,4,5 / 6,7
Lead dissolved	4	44	24/15	4,7
Chromium	100	160	101	3
Zinc	2400	260	516	5

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	21	6
Lead dissolved	4	44	29	6
Selenium dissolved	50	5	12	6
Zinc dissolved	2400	260	311	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	42	6
Lead dissolved	4	44	42	6
Selenium dissolved	50	5	12	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Cadmium	5	4.5	65	1
Selenium	50	5	6	1
Selenium dissolved	50	5	6	7
Arsenic	10	10	19/13	5,8
Copper	1000	20	25/22	5,8
Lead	4	44	19/14	5,8

ANALYTE	DW	GSI	Exceedance	Sampling Event
Vinyl Chloride	2	13	80/0.91	4,5,6,7
Arsenic	10	10	19/27/14/17 / 17/17/10	4,5,6,7,8
Arsenic dissolved	10	10	19/19/20/14	5,7,8,9
Lead	4	44	19/27/254	4,5,8
Zinc	2400	260	900/270	5,8
Copper	1000	20	49/302	5,8
Copper dissolved	1000	20	200	5
Chromium	100	160	250/143	5,8
Trichloroethene	5	200	24	7
Vinyl Chloride	2	13	3.4	8,9

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	13	2
Vinyl Chloride	2	13	19/.99 / 44	2,3 / 4,9
1,2-Dichloroethene	7	120	10/18	2,3
Trichloroethene	5	200	119/130 / 69/270	2,4,5 / 8,9
cis-1,2-Dichloroethene	70	620	160	3
Lead	4	44	20	4
Copper	1000	20	22	4
Chromium	100	160	257	3

ANALYTE	DW	GSI	Exceedance	Sampling Event
Vinyl Chloride	2	13	20/7/17/14 / 10/12/17	2,3,4,5,6,7,8,9
Copper	1000	20	21/7/22	2,5,8
Lead	4	44	70/38/33	2,5,8
Trichloroethene	5	200	110/71/93 / 140/103/100 / 130	2,3,4,5,6,8,9
cis-1,2-Dichloroethene	70	620	160	3
Arsenic	10	10	45/16	5,8
Trichloroethene	5	60	104	7

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	13	5
Copper	1000	20	49/31	5,8
Lead	4	44	35/15	5,8
Selenium	50	5	48/7	5,8,7
Selenium dissolved	50	5	6	7

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	13/13 / 22/17/16	1,2,3 / 4,5,7
Arsenic dissolved	10	10	22/15	5,6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic dissolved	10	10	27	6
Lead dissolved	4	44	7	6
Vinyl Chloride	2	13	7	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic dissolved	10	10	38	6
Lead dissolved	4	44	37	6
Ethylbenzene	24	18	38	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	20/15	5,6
Copper dissolved	1000	20	180	5
Copper	1000	20	29	6
Lead	4	44	30/174	5,6,8
Selenium	50	5	10	5
Zinc	2400	260	196/57	5,6
Zinc dissolved	2400	260	69	5
Trichloroethene	5	200	6.9	2,3
Chromium	100	160	1230	7

ANALYTE	DW	GSI	Exceedance	Sampling Event
Vinyl Chloride	2	13	99	1
Silver	24	0.2	0.6	3
Arsenic	10	10	90/103	3,6,8
Copper	1000	20	710/1100/101	5,6,8
Lead	4	44	140/4/41	5,6,8
Lead dissolved	4	44	23	7
Selenium	50	5	8.7	5,6
Zinc	2400	260	537/317	5,8
Chromium	100	160	450/3/1350 / 4600	5,6,8

ANALYTE	DW	GSI	Exceedance	Sampling Event
Trichloroethene	5	200	110	5,8
Selenium	50	5	6	5
Arsenic	10	10	29	8
Copper	1000	20	200	5
Lead	4	44	70	5
Zinc	2400	260	491	5

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	60/42	6,8
Selenium	50	5	10/7/14	2,3,5
Selenium dissolved	50	5	10/9/14/9	5,6,7,8,9
Silver	24	0.2	.6	3
Lead	4	44	8/7/20/10	4,6,7,8
Lead dissolved	4	44	12	7
Trichloroethene	5	200	23/8/10	2,4,9
Tetrachloroethene	5	60	22/27/26/28	5,6,7,8
Copper	1000	20	110/170 / 154/410	5,6,7,8
Chromium	100	160	310/3/60 / 4200	5,7,8

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper	1000	20	33/78	8,9
Chromium	1000	160	37/50 / 1/1/1/400	6,7,8
Lead	4	44	21.8	7,8
Lead dissolved	4	44	25	7
Arsenic	10	10	12	8

ANALYTE	DW	GSI	Exceedance	Sampling Event
Vinyl Chloride	2	13	1.3	1
Arsenic	10	10	4.7	1
Arsenic dissolved	10	10	5.6	1

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	13	5
Arsenic dissolved	10	10	5.6	5

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	27	6
Lead dissolved	4	44	7	6
Vinyl Chloride	2	13	7	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic dissolved	10	10	38	6
Lead dissolved	4	44	37	6
Ethylbenzene	24	18	38	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	20/15	5,6
Copper dissolved	1000	20	180	5
Copper	1000	20	29	6
Lead	4	44	30/174	5,6,8
Selenium	50	5	10	5
Zinc	2400	260	196/57	5,6
Zinc dissolved	2400	260	69	5
Trichloroethene	5	200	6.9	2,3
Chromium	100	160	1230	7

ANALYTE	DW	GSI	Exceedance	Sampling Event
Vinyl Chloride	2	13	99	1
Silver	24	0.2	0.6	3
Arsenic	10	10	90/103	3,6,8
Copper	1000	20	710/1100/101	5,6,8
Lead	4	44	140/4/41	5,6,8
Lead dissolved	4	44	23	7
Selenium	50	5	8.7	5,6
Zinc	2400	260	537/317	5,8
Chromium	100	160	450/3/1350 / 4600	5,6,8

ANALYTE	DW	GSI	Exceedance	Sampling Event
Trichloroethene	5	200	110	5,8
Selenium	50	5	6	5
Arsenic	10	10	29	8
Copper	1000	20	200	5
Lead	4	44	70	5
Zinc	2400	260	491	5

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper	1000	20	33/78	8,9
Chromium	1000	160	37/50 / 1/1/1/400	6,7,8
Lead	4	44	21.8	7,8
Lead dissolved	4	44	25	7
Arsenic	10	10	12	8

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	13/13 / 22/17	1,2,3 / 4,5,7
Arsenic dissolved	10	10	22/15	5,6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	48/34 / 32/47/56	1,2,3 / 4,5,7
Arsenic dissolved	10	10	22/15	5,6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	27	6
Lead dissolved	4	44	7	6
Vinyl Chloride	2	13	7	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic dissolved	10	10	38	6
Lead dissolved	4	44	37	6
Ethylbenzene	24	18	38	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	20/15	5,6
Copper dissolved	1000	20	180	5
Copper	1000	20	29	6
Lead	4	44	30/174	5,6,8
Selenium	50	5	10	5
Zinc	2400	260	196/57	5,6
Zinc dissolved	2400	260	69	5
Trichloroethene	5	200	6.9	2,3
Chromium	100	160	1230	7

ANALYTE	DW	GSI	Exceedance	Sampling Event
Vinyl Chloride	2	13	99	1
Silver	24	0.2	0.6	3
Arsenic	10	10	90/103	3,6,8
Copper	1000	20	710/1100/101	5,6,8
Lead	4	44	140/4/41	5,6,8
Lead dissolved	4	44	23	7
Selenium	50	5	8.7	5,6
Zinc	2400	260	537/317	5,8
Chromium	100	160	450/3/1350 / 4600	5,6,8

ANALYTE	DW	GSI	Exceedance	Sampling Event
Trichloroethene	5	200	110	5,8
Selenium	50	5	6	5
Arsenic	10	10	29	8
Copper	1000	20	200	5
Lead	4	44	70	5
Zinc	2400	260	491	5

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper	1000	20	33/78	8,9
Chromium	1000	160	37/50 / 1/1/1/400	6,7,8
Lead	4	44	21.8	7,8
Lead dissolved	4	44	25	7
Arsenic	10	10	12	8

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	13	2
Vinyl Chloride	2	13	19/.99 / 44	2,3 / 4,9
1,2-Dichloroethene	7	120	10/18	2,3
Trichloroethene	5	200	119/130 / 69/270	2,4,5 / 8,9
cis-1,2-Dichloroethene	70	620	160	3
Lead	4	44	20	4
Copper	1000	20	22	4
Chromium	100	160	257	3

ANALYTE	DW	GSI	Exceedance	Sampling Event
Vinyl Chloride	2	13	20/7/17/14 / 10/12/17	2,3,4,5,6,7,8,9
Copper	1000	20	21/7/22	2,5,8
Lead	4	44	70/38/33	2,5,8
Trichloroethene	5	200	110/71/93 / 140/103/100 / 130	2,3,4,5,6,8,9
cis-1,2-Dichloroethene	70	620	160	3
Arsenic	10	10	45/16	5,8
Trichloroethene	5	60	104	7

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	13	5
Copper	1000	20	49/31	5,8
Lead	4	44	35/15	5,8
Selenium	50	5	48/7	5,8,7
Selenium dissolved	50	5	6	7

ANALYTE	DW	GSI	Exceedance	Sampling Event
Cadmium	5	4.5	65	1
Selenium	50	5	6	1
Selenium dissolved	50	5	6	7
Arsenic	10	10	19/13	5,8
Copper	1000	20	25/22	5,8
Lead	4	44	19/14	5,8

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	42	6
Lead dissolved	4	44	42	6
Selenium dissolved	50	5	12	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	21	6
Lead dissolved	4	44	29	6
Selenium dissolved	50	5	12	6
Zinc dissolved	2400	260	311	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper	1000	20	20	6
Lead	4	44	10	6
Trichloroethene	5	200	88	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	144	6
Lead dissolved	4	44	14	6
Trichloroethene	5	200	76	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	140	6
Lead dissolved	4	44	201	6
Zinc dissolved	2400	260	324	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	94	6
Lead dissolved	4	44	31	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	24	6
Lead dissolved	4	44	13	6
Trichloroethene	5	200	9	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	22	6
Lead dissolved	4	44	23	6
Zinc dissolved	2400	260	323	6
Trichloroethene	5	200	4	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic dissolved	10	10	30	6
Zinc dissolved	2400	260	400	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic dissolved	10	10	17	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	17/14/10/33	4,5,6
Arsenic dissolved	10	10	21/17	6,8
Copper	1000	20	49/62 / 770/1170/770	5,7
Copper dissolved	1000	20	28	6
Lead	4	44	10/19/41 / 44/19/20	2,4,5 / 6,7
Lead dissolved	4	44	24/15	4,7
Chromium	100	160	101	3
Zinc	2400	260	516	5

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	21	6
Lead dissolved	4	44	29	6
Selenium dissolved	50	5	12	6
Zinc dissolved	2400	260	311	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper dissolved	1000	20	42	6
Lead dissolved	4	44	42	6
Selenium dissolved	50	5	12	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Cadmium	5	4.5	65	1
Selenium	50	5	6	1
Selenium dissolved	50	5	6	7
Arsenic	10	10	19/13	5,8
Copper	1000	20	25/22	5,8
Lead	4	44	19/14	5,8

ANALYTE	DW	GSI	Exceedance	Sampling Event
Vinyl Chloride	2	13	80/0.91	4,5,6,7
Arsenic	10	10	19/27/14/17 / 17/17/10	4,5,6,7,8
Arsenic dissolved	10	10	19/19/20/14	5,7,8,9
Lead	4	44	19/27/254	4,5,8
Zinc	2400	260	900/270	5,8
Copper	1000	20	49/302	5,8
Copper dissolved	1000	20	200	5
Chromium	100	160	250/143	5,8
Trichloroethene	5	200	24	7
Vinyl Chloride	2	13	3.4	8,9

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	13	2
Vinyl Chloride	2	13	19/.99 / 44	2,3 / 4,9
1,2-Dichloroethene	7	120	10/18	2,3
Trichloroethene	5	200	119/130 / 69/270	2,4,5 / 8,9
cis-1,2-Dichloroethene	70	620	160	3
Lead	4	44	20	4
Copper	1000	20	22	4
Chromium	100	160	257	3

ANALYTE	DW	GSI	Exceedance	Sampling Event
Vinyl Chloride	2	13	20/7/17/14 / 10/12/17	2,3,4,5,6,7,8,9
Copper	1000	20	21/7/22	2,5,8
Lead	4	44	70/38/33	2,5,8
Trichloroethene	5	200	110/71/93 / 140/103/100 / 130	2,3,4,5,6,8,9
cis-1,2-Dichloroethene	70	620	160	3
Arsenic	10	10	45/16	5,8
Trichloroethene	5	60	104	7

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	13	5
Copper	1000	20	49/31	5,8
Lead	4	44	35/15	5,8
Selenium	50	5	48/7	5,8,7
Selenium dissolved	50	5	6	7

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	13/13 / 22/17/16	1,2,3 / 4,5,7
Arsenic dissolved	10	10	22/15	5,6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic dissolved	10	10	27	6
Lead dissolved	4	44	7	6
Vinyl Chloride	2	13	7	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic dissolved	10	10	38	6
Lead dissolved	4	44	37	6
Ethylbenzene	24	18	38	6

ANALYTE	DW	GSI	Exceedance	Sampling Event
Arsenic	10	10	20/15	5,6
Copper dissolved	1000	20	180	5
Copper	1000	20	29	6
Lead	4	44	30/174	5,6,8
Selenium	50	5	10	5
Zinc	2400	260	196/57	5,6
Zinc dissolved	2400	260	69	5
Trichloroethene	5	200	6.9	2,3
Chromium	100	160	1230	7

ANALYTE	DW	GSI	Exceedance	Sampling Event
Vinyl Chloride	2	13	99	1
Silver	24	0.2	0.6	3
Arsenic	10	10	90/103	3,6,8
Copper	1000	20	710/1100/101	5,6,8
Lead	4	44	140/4/41	5,6,8
Lead dissolved	4	44	23	7
Selenium	50	5	8.7	5,6
Zinc	2400	260	537/317	5,8
Chromium	100	160	450/3/1350 / 4600	5,6,8

ANALYTE	DW	GSI	Exceedance	Sampling Event
Trichloroethene	5	200	110	5,8
Selenium	50	5	6	5
Arsenic	10	10	29	8
Copper	1000	20	200	5
Lead	4	44	70	5
Zinc	2400	260	491	5

ANALYTE	DW	GSI	Exceedance	Sampling Event
Copper	1000	20	33/78	8,9
Chromium	1000	160	37/50 / 1/1/1/400	6,7,8
Lead	4	44	21.8	7,8
Lead dissolved	4	44	25	7
Arsenic	10	10	12	8

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: 810.715.2525; Fax: 810.715.2526

Summary of Drinking Water and Ground to Surfacewater Interface Exceedences in Groundwater 2012 / 2015

Racer Flint West - 12990
Flint West Industrial Land, Flint, MI

DATE:	SCALE:
2012 / 2015	As Shown
PROJECT:	FIGURE:
11-4317-102	4

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA725)
Current Human Exposures Under Control

Facility Name: Flint West Industrial Land - 12990
Facility Address: North of Glenwood Street and West of Stevens Street, Flint, Genesee County, Michigan
Facility EPA ID #: MIK20401172

1. Has all available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination?

X If yes - check here and continue with #2 below.

If no - re-evaluate existing data, or

If data are not available skip to #6 and enter (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of Current Human Exposures Under Control EI

A positive Current Human Exposures Under Control EI determination (YE status code) indicates that there are no unacceptable human exposures to contamination (i.e., contaminants in concentrations in excess of appropriate risk- based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all contamination subject to RCRA corrective action at or from the identified facility (i.e., Site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA. The Current Human Exposures Under Control EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration/Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

2. Are groundwater, soil, surface water, sediments, or air media known or reasonably suspected to be "contaminated"[1] above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	YES	NO	Rationale/Key Contaminants
Groundwater	X		Arsenic, Selenium, Mercury, Phenanthrene, and select CVOCs exceed GSI and/or DW criteria
Air (Indoors)	X		A limited area of CVOCs exceeds the residential and non-residential indoor air inhalation GRCCs.
Surface Soil (< 2ft)		X	Only a very small portion of the Site in unpaved.
Surface Water		X	Due to pavement, stormwater has only a negligible risk of impact.
Sediment		X	Soil erosion is not anticipated due to extensive pavement and no sediment is present on-Site.
Subsurface soil (>2 ft)	X		Mercury, naphthalene, benzene, Phenanthrene and select CVOCs exceed the DW and/or GSI criteria.
Air (Outdoors)	X		Trichloroethene exceeds the infinite source GRCC ambient air inhalation limit for residential and non-residential uses.

Notes:

- GSI = Groundwater to Surface Water Interface
- DW = Drinking Water
- GRCC = Generic Residential Cleanup Criteria
- [1]Contamination and contaminated describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk- based levels (for the media, that identify risks within the acceptable risk range).

If no (for all media) - skip to #6, and enter YE status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

If unknown (for any media) - skip to #6 and enter "IN' status code.

Rationale and Reference(s):

Cleanup criteria used for comparison are the Generic Residential and Non-Residential Cleanup Criteria presented in the MDEQ "Operational Memorandum #2, Attachment 1," updated September 28, 2012. The Cleanup Criteria are final published values and include the lowered thresholds for air inhalation protection. No draft Cleanup Criteria are used in the comparisons.

Site data used to form the rationales below is presented in the following attachments:

FIGURES:
Figure 2: Summary of GSI Exceedances in Groundwater
Figure 3: Summary of Drinking Water Exceedances in Groundwater
Figure 4: Summary of Soil Exceedances

ATTACHMENTS:
Attachment 4: Soil and Groundwater Analytical Tables
Attachment 5: Soil and Groundwater Analytical Data

Groundwater: Groundwater samples indicate DW and GSI criteria exceedances. No other criteria are exceeded in groundwater.

Air (indoors): Trichloroethene was found (in soil but not groundwater) above the indoor air criteria for residential and non-residential uses on a limited portion of the Site. There are no buildings proximate to this area.

Surface Soil: Only a very small portion of the Site is unpaved.

Surface Water: Due to pavement, stormwater runoff has only a negligible risk of impacts and there is no surface water on the Site or impacted by contaminants from the Site.

Sediment: The Site does not contain any sediment body and consists almost entirely of paved concrete surfaces.

Subsurface Soil: Mercury, naphthalene, benzene, phenanthrene and select CVOCs exceed the DW and/or GSI criteria. Soil direct contact criteria are not exceeded.

Air (outdoor): Soil concentrations on a limited portion of the Site exceed the residential and non-residential infinite source and the residential 5m source thickness criteria for ambient air inhalation protection. Particulate soil inhalation criteria are not exceeded.

The 5m source thickness for the non-residential criterion is not exceeded. Impacts have been found to be less than 5m in total thickness.

3. Are there complete pathways between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential **Human Receptors** (Under Current Conditions)

"Contaminated" Media	Residents	Workers, Day Care	Construction	Trespassers	Recreation	Food *
Groundwater	No	No	No	No	No	No
Air (Indoors)	No	No	No	No	No	No
~~Surface Soil (< 2ft)~~						
~~Surface Water~~						
~~Sediment~~						
Subsurface soil (>2 ft)	No	No	No	No	No	No
Air (Outdoors)	No	No	YES	YES	No	No

*Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors spaces for Media which are not contaminated as identified in #2 above.

2. Enter yes or no for potential completeness under each Contaminated Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential Contaminated Media - Human Receptor combinations (Pathways) do not have check spaces (____). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter YE status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

If yes (pathways are complete for any Contaminated Media - Human Receptor combination) - continue after providing supporting explanation.

If unknown (for any Contaminated Media - Human Receptor combination) - skip to #6 and enter IN status code.

Rationale and Reference(s):

The Site consists of approximately five acres of land located west of Stevens Street and north of Glenwood Avenue in Flint, Genesee County, Michigan. The Site is developed with a Consumers Energy electrical substation in the central portion. Almost the entire Site consists of concrete pavement, remaining after the demolition of a former manufacturing building. The majority of the Site is secured with a locked chain-link fence. The Site is regularly patrolled by RACER security personnel.

The current exceedances in soil and groundwater do not present a human health risk because the concentrations that exist are primarily above the MDEQ Groundwater/Surface Water Interface criteria (GSI) and the Drinking Water Protection (DWP) criteria.

A small area of trichloroethene exceeds the residential and non-residential indoor air inhalation protection and ambient air inhalation, Infinite Source thickness criteria. The direct contact and particulate inhalation criteria are not exceeded. The possibility exists that the area of impact could be accessed by utility/construction personnel (associated with the Consumers Energy substation) or unauthorized trespassers. This area of trichloroethene contamination is located outdoors and is isolated from any buildings by soils demonstrated to be within acceptable residential inhalation criteria.

The exceedances of the GSI criteria do not represent a complete exposure pathway due to a distance of over 600 feet from the nearest surface water body, the Flint River. The Drinking Water exceedances do not represent a concern because groundwater at and downgradient from the Site is not used for drinking water. No drinking water wells are located in the area, and local well permit requirements prevent installation of drinking water wells in the area.

There are discreet groundwater wells where certain metals exceed the GSI and the drinking water criteria, but there is no evidence of a Site-wide groundwater plume at this time. Metals concentrations in groundwater appear to be within expected naturally-occurring concentrations for the area. Notwithstanding, the metals concentrations do not have the potential to create a human health exposure per the above explanations.

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **significant**[4] (i.e., potentially unacceptable because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable levels (used to identify the contamination); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable levels) could result in greater than acceptable risks)?

X If no (exposures cannot be reasonably expected to be significant (i.e., potentially unacceptable) for any complete exposure pathway) - skip to #6 and enter YE status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to contamination (identified in #3) are not expected to be **significant.**

If yes (exposures could be reasonably expected to be significant (i.e., potentially unacceptable) for any complete exposure pathway) - continue after providing a description (of each potentially unacceptable exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to contamination (identified in #3) are not expected to be significant.

If unknown (for any complete pathway) - skip to #6 and enter IN status code.

Rationale and Reference(s):

Although a small area of trichloroethene exceeds the residential and non-residential indoor air inhalation protection and ambient air inhalation, Infinite Source thickness criteria, soil contamination does not pose a significant human health. This area of trichloroethene contamination is located outdoors and is isolated from any buildings by soils demonstrated to be within acceptable residential inhalation criteria.

The possibility exists that the area of impact could be accessed by utility/construction personnel (associated with the Consumers Energy substation) or unauthorized trespassers. Because no VOCs have been found above the non-residential 5m source thickness criteria (and no VOC impact has been identified with a source area thicker than 5m), and because no particulate inhalation or dermal contact criteria are exceeded, utility workers and trespassers are not at risk.

4 If there is any question on whether the identified exposures are significant (i.e., potentially unacceptable) consult a human health Risk Assessment specialist with appropriate education, training and experience.

5. Can the significant **exposures** (identified in #4) be shown to be within **acceptable** limits?

If yes (all significant exposures have been shown to be within acceptable limits) - continue and enter YE after summarizing and referencing documentation justifying why all significant exposures to contamination are within acceptable limits (e.g., a Site-specific Human Health Risk Assessment).

If no (there are current exposures that can be reasonably expected to be unacceptable)- continue and enter NO stains code after providing a description of each potentially unacceptable exposure.

If unknown (for any potentially unacceptable exposure) - continue and enter IN stains code.

Rationale and Reference(s):

6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

X YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a **review of the information contained in this EI Determination, "Current Human** Exposures" are expected to be "Under Control" at the RACER Trust – Flint West facility, EPA ID# MIK20401172, located in Flint, Michigan under current and reasonably expected conditions. This determination will be re-evaluated when the **Agency/State becomes aware of significant changes at the facility.**

NO - "Current Human Exposures" are NOT "Under Control."

IN - **More information is needed to make a determination.**

Completed by:	(signature)	Date:
	(print)	
	(title)	
Supervisor:	(signature)	Date:
	(print)	
	(title)	
	(EPA Region or State)	

Locations where References may be found:

FIGURES:
Figure 1: Site Location Map
Figure 2: Summary of GSI Exceedances in Groundwater
Figure 3: Summary of Drinking Water Exceedances in Groundwater
Figure 4: Summary of Soil Exceedances

ATTACHMENTS:
Attachment 1: Soil Boring Logs
Attachment 2: Monitoring Well Construction Logs
Attachment 3: Cross Section Diagrams
Attachment 4: Soil and Groundwater Analytical Tables
Attachment 5: Soil and Groundwater Analytical Data

Contact Information:

Name:	
Phone #:	
Email:	

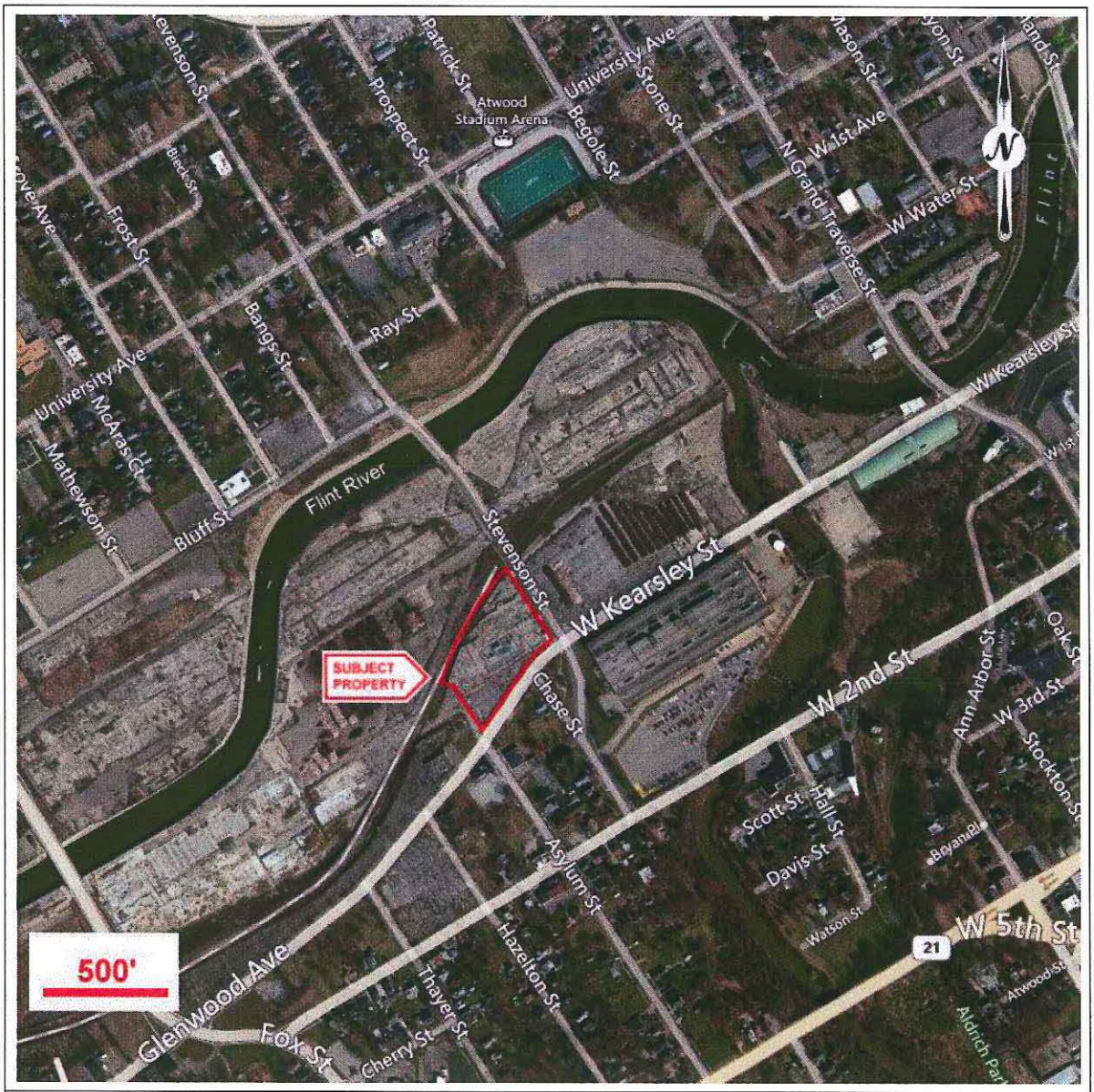
FINAL NOTE: THE HUMAN EXPOSURES **EI** IS A QUALITATIVE SCREENING OF EXPOSURES, AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

FIGURES

SITE LOCATION MAP

RACER Flint West

FIGURE	DATE	SCALE	PROJECT No.
1	2012	As Shown	11-4317



Source: United States Geological Survey	Property outline is approximate.

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

G-4300 South Saginaw Street
Burton, Michigan 48529
☎(810) 715-2525
FAX (810) 715-2526
www.AppliedEcoSystems.com

RACER Flint West

Figure 2: Summary of GSI Exceedances in Groundwater

MW-108S (mg/L)

	GSI	3/2012	12/2012	4/2013
Selenium	.005	NA	<.005	.007

MW-109S (mg/L)

	GSI	3/2012	12/2012	4/2013
Copper	.020	NA	.028	NA
Vinyl Chloride	.013	NA	.028	.017

MW-103S (mg/L)

	GSI	3/2012	12/2012	4/2013
Arsenic	0.01	.042	.055	.041
Phenathrene	.002	.011	<0.002	<0.002

MW-111S (mg/L)

	GSI	3/2012	12/2012	4/2013
Arsenic	0.01	NA	.015	.002
Vinyl Chloride	.013	NA	.195	<.013

MW-110S (mg/L)

	GSI	3/2012	12/2012	4/2013
Copper	.020	NA	.049	NA

MW-102S (mg/L)

	GSI	3/2012	12/2012	4/2013
Selenium	.005	.008	.003	<0.005

MW-100S (mg/L)

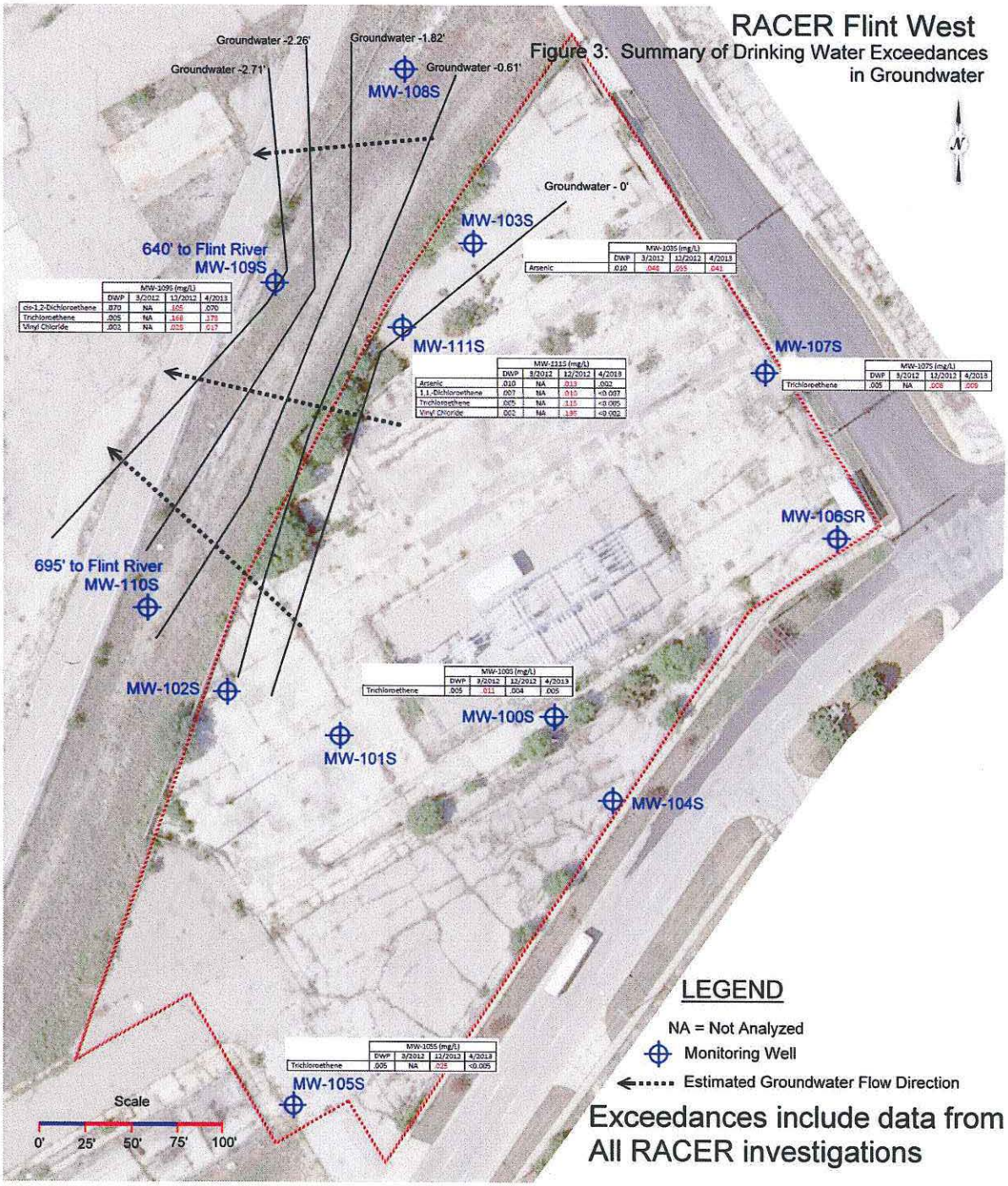
	GSI	3/2012	12/2012	4/2013
Selenium	.005	.008	Dry	<0.005

MW-101S (mg/L)

	GSI	3/2012	12/2012	4/2013
Selenium	.005	.008	.003	<0.005
Mercury	.0000013	.0002	ND	<0.0001

MW-105S (mg/L)

	GSI	3/2012	12/2012	4/2013
Selenium	.005	NA	.030	.007



MW-109S (mg/L)				
	DWP	3/2012	12/2012	4/2013
cis-1,2-Dichloroethene	.070	NA	.105	.070
Trichloroethene	.005	NA	.168	.178
Vinyl Chloride	.002	NA	.025	.017

MW-103S (mg/L)				
	DWP	3/2012	12/2012	4/2013
Arsenic	.010	.046	.055	.041

MW-111S (mg/L)				
	DWP	3/2012	12/2012	4/2013
Arsenic	.010	NA	.013	.002
1,1,-Dichloroethene	.007	NA	.010	<0.007
Trichloroethene	.005	NA	.115	<0.005
Vinyl Chloride	.002	NA	.135	<0.002

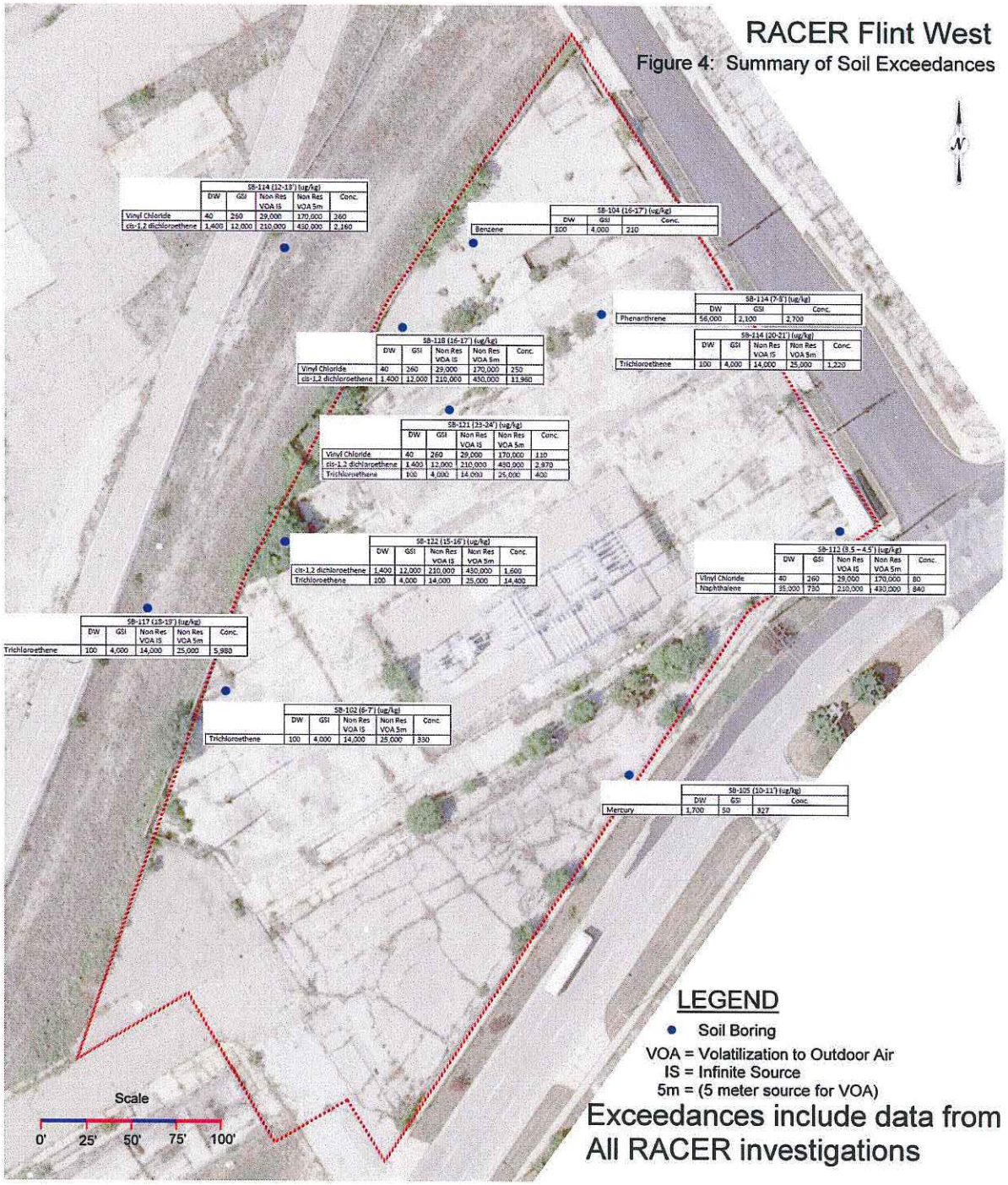
MW-107S (mg/L)				
	DWP	3/2012	12/2012	4/2013
Trichloroethene	.005	NA	.008	.005

MW-100S (mg/L)				
	DWP	3/2012	12/2012	4/2013
Trichloroethene	.005	.011	.004	.005

MW-105S (mg/L)				
	DWP	3/2012	12/2012	4/2013
Trichloroethene	.005	NA	.025	<0.005

RACER Flint West

Figure 4: Summary of Soil Exceedances



SB-114 (12-13') (ug/kg)	DW	GSI	Non Res VOA IS	Non Res VOA 5m	Conc.
Vinyl Chloride	40	260	29,000	170,000	260
cis-1,2 dichloroethene	1,400	12,000	210,000	430,000	2,160

SB-104 (16-17') (ug/kg)	DW	GSI	Conc.
Benzene	100	4,000	210

SB-114 (7-8') (ug/kg)	DW	GSI	Conc.
Phenanthrene	56,000	2,100	2,700

SB-114 (20-21') (ug/kg)	DW	GSI	Non Res VOA IS	Non Res VOA 5m	Conc.
Trichloroethene	100	4,000	14,000	25,000	1,220

SB-118 (16-17') (ug/kg)	DW	GSI	Non Res VOA IS	Non Res VOA 5m	Conc.
Vinyl Chloride	40	260	29,000	170,000	250
cis-1,2 dichloroethene	1,400	12,000	210,000	430,000	11,980

SB-121 (33-34') (ug/kg)	DW	GSI	Non Res VOA IS	Non Res VOA 5m	Conc.
Vinyl Chloride	40	260	29,000	170,000	110
cis-1,2 dichloroethene	1,400	12,000	210,000	430,000	2,970
Trichloroethene	100	4,000	14,000	25,000	400

SB-122 (15-16') (ug/kg)	DW	GSI	Non Res VOA IS	Non Res VOA 5m	Conc.
cis-1,2 dichloroethene	1,400	12,000	210,000	430,000	1,600
Trichloroethene	100	4,000	14,000	25,000	14,400

SB-112 (3.5 – 4.5') (ug/kg)	DW	GSI	Non Res VOA IS	Non Res VOA 5m	Conc.
Vinyl Chloride	40	260	29,000	170,000	80
Naphthalene	35,000	730	210,000	430,000	840

SB-117 (13-13') (ug/kg)	DW	GSI	Non Res VOA IS	Non Res VOA 5m	Conc.
Trichloroethene	100	4,000	14,000	25,000	5,980

SB-102 (6-7') (ug/kg)	DW	GSI	Non Res VOA IS	Non Res VOA 5m	Conc.
Trichloroethene	100	4,000	14,000	25,000	330

SB-105 (10-11') (ug/kg)	DW	GSI	Conc.
Mercury	1,700	50	327

LEGEND

- Soil Boring

VOA = Volatilization to Outdoor Air
IS = Infinite Source
5m = (5 meter source for VOA)

Exceedances include data from All RACER investigations

Attachment # 1: Soil Boring Logs

Applied *Eco*Systems
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-100 (03/07/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/07/2012

SUBSURFACE PROFILE			SAMPLE		
Depth (ft / m)	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
0 / 0	Ground Surface				
	Concrete			HA	0.0
2	***GW*** Sand, medium to fine; well sorted; dry; brown (7.5YR4/4). NOTE: Appears to be fill material.				0.0
					0.0
4					0.0
					0.0
6 / 2	***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 4 inches thick; dry; brownish yellow (10YR6/6).		(05-06)	42/60	0.0
					0.0
8			(07-08)		0.0
	MH Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 4 inches thick; moist, brownish yellow (10YR6/6).				0.0
10					0.0
				48/60	0.0
12					0.0
4					0.0
14					0.0

Drill Start: 11:18
Drill End: 12:37
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-100 (03/07/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/07/2012

SUBSURFACE PROFILE			SAMPLE		Photoionization Detector (PID)
Depth	Description	USCS Classification	Depth	Recovery (inch)	0 10 20 30 40 50
	MH Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 4 inches thick; saturated, brownish yellow (10YR6/6).			54/60	0.0
16					0.0
					0.0
18					0.0
					0.0
20 (6)				54/60	0.0
					0.0
22	***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 4 inches thick; saturated, gray (5Y6/1)				0.0
					0.0
24	***CL*** Clay, some silt, medium plasticity; dry; gray (5Y5/1).				0.0
					0.0
26 (8)	End of Log				
28					

Drill Start: 11:18
Drill End: 12:37
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

Applied *Eco*Systems
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-101 (03/08/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/08/2012

SUBSURFACE PROFILE			SAMPLE		
Depth (ft / m)	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
0 / 0	Ground Surface				
	Concrete				0.0
	GW Sand, fine to medium; well sorted; soft; dry; brown (7.5YR4/4). NOTE: brick, concrete, and large stones; rounded throughout.			HA	0.0
2					0.0
					0.0
4					0.0
				36/60	0.0
6 / 2					0.0
					0.0
8					0.0
					0.0
10	***GP*** Sand, fine to coarse; rounded; loose; poorly sorted; brown (7.5YR4/4)			42/60	0.0
			(11-12)		0.0
12					0.0
4					0.0
14					

Drill Start: 10:40
Drill End: 12:01
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

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Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-101 (03/08/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/08/2012

SUBSURFACE PROFILE			SAMPLE		
Depth	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID) (0 10 20 30 40 50)
	MH Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 4 inches thick; dry; brownish yellow (10YR6/6).		(14-15)	54/60	0.0, 0.0
16					
	MH Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 4 inches thick; saturated, brownish yellow (10YR6/6).				0.0, 0.0, 0.0, 0.0
18					
6					
20				43/48	0.0
	CL Clay, some silt, medium plasticity; dry; gray (5Y5/1).				0.0, 0.0, 0.0
22					
24	End of Log				
26					
8					
28					

Drill Start: 10:40
Drill End: 12:01
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

Applied *Eco*Systems
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-102 (03/08/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/08/2012

SUBSURFACE PROFILE			SAMPLE		
Depth (ft / m)	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
0 / 0	Ground Surface				
	Concrete				0.0
	MH Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 2 inches thick; dry; brownish yellow (10YR6/6).			HA	0.0
2					0.0
					0.0
4					0.0
				24/60	0.0
6 / 2			(06-07)		0.0
8					0.0
					0.0
10				36/60	0.0
12 / 4			(12-13)		0.0
14					0.0

Photoionization Detector (PID) scale: 0 10 20 30 40 50

Drill Start: 13:58
Drill End: 15:18
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-102 (03/08/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/08/2012

SUBSURFACE PROFILE			SAMPLE		
Depth	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
					0.0
	GP Sand, fine to coarse; rounded; poorly sorted; trace silt; moist; brown (7.5YR4/4)			54/60	0.0
16	***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 2 inches thick; saturated; brownish yellow (10YR6/6).				0.0
18					0.0
					0.0
6					0.0
20	***GW*** Sand, fine to medium; rounded; loose; well sorted; saturated; very pale brown (10YR7/3).			42/48	0.0
22					0.0
					0.0
24	***Obstruction*** Refusal; Rock or Boulder				
	End of Log				
26					
8					
28					

Photoionization Detector (PID) scale: 0 10 20 30 40 50

Drill Start: 13:58
Drill End: 15:18
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

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Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-103 (03/08/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/08/2012

SUBSURFACE PROFILE / SAMPLE

Depth (ft)	Depth (m)	Description	USCS Classification	Sample Depth	Recovery (inch)	Photoionization Detector (PID)
0	0	Ground Surface				
		Concrete				0.0
					HA	
		GP Sand, fine to coarse; rounded; poorly sorted; trace silt; dry; brown (7.5YR4/4). NOTE: brick, concrete, and large stones throughout.				0.0
2						0.0
						0.0
4						0.0
					6/60	
		MH Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; gray (5Y5/1).				0.0
6	2					0.0
8						0.0
						0.0
				(09-10)		0.0
10					48/60	
		MH Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; discolored/black (5Y2.5/1).				0.0
12						0.0
				(12-13)		0.0
	4					
14						0.0

Drill Start: 16:06
Drill End: 16:51
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-103 (03/08/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/08/2012

SUBSURFACE PROFILE			SAMPLE		
Depth	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID) (0 10 20 30 40 50)
16	***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 3 inches thick; moist; gray (10YR6/1).			54/60	0.0
					0.0
					0.0
18	***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 3 inches thick; saturated; brownish yellow (10YR6/6).				0.0
					0.0
20 (6)	***CL*** Clay, some silt, medium plasticity; dry; gray (5Y5/1).			33/36	0.0
					0.0
22					0.0
					0.0
24	End of Log				
26 (8)					
28					

Drill Start: 16:06
Drill End: 16:51
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

Applied *Eco*Systems
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-104 (03/13/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/13/2012

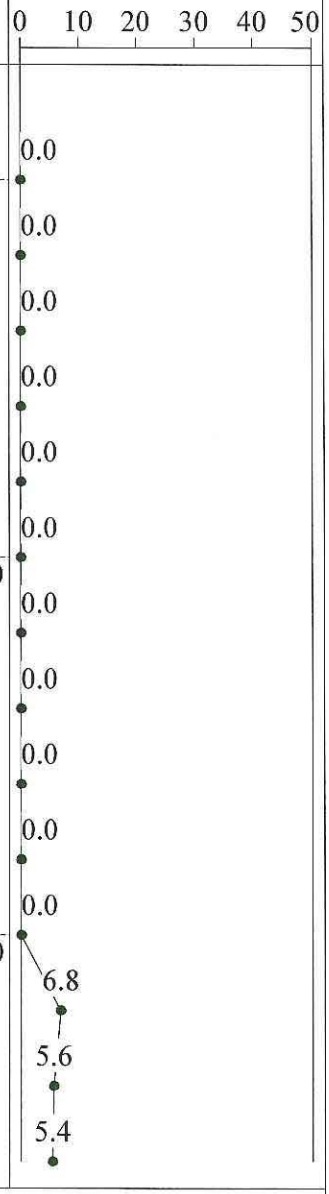
SUBSURFACE PROFILE

Depth (ft)	Depth (m)	Description	USCS Classification
0	0	Ground Surface	
		Concrete	
		GP Sand, fine to coarse; rounded; poorly sorted; trace silt; dry; dark yellowish brown (10YR3/6).	
2		***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; dry; light olive brown (2.5Y5/4).	
4		***GW*** Sand, fine to medium; well sorted; dry; pale yellow (2.5Y7/3). NOTE: Fill Material	
6	2	***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; dry; light olive brown (2.5Y5/4)	
8		***GW*** Sand, fine to medium; well sorted; moist; light olive brown (2.5Y5/4). NOTE: Fill Material	
10			
12	4	***GP*** Sand, fine to medium; rounded; well sorted; trace silt; saturated; dark gray (2.5Y4/1). NOTE: Strong solvent/petroleum odor	
14			

SAMPLE

Depth	Recovery (inch)
	HA
(07-08)	48/60
	42/60

Photoionization Detector (PID)



Drill Start: 12:15
Drill End: 14:18
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-104 (03/13/2012)

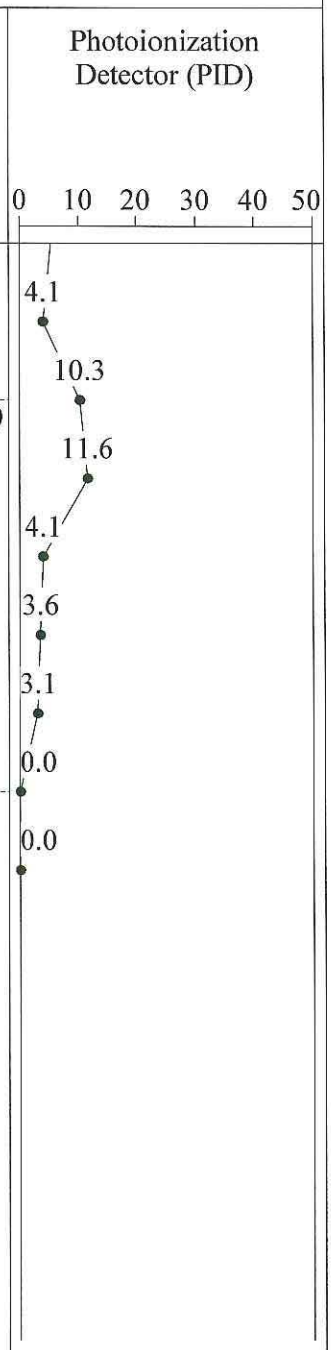
Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/13/2012

SUBSURFACE PROFILE

Depth	Description	USCS Classification
16	***CL*** Clay, some silt, medium plasticity; dry; light olive gray (5Y6/2). NOTE: Odor indicated.	
	Rock	
18	***CL*** Clay; trace sand, fine to coarse; poorly sorted; nonplastic; hard; light olive gray (5Y6/2). NOTE: Odor indicated.	
6 / 20		
22	End of Log	
24		
26 / 8		
28		

SAMPLE

Depth	Recovery (inch)
(16-17)	54/60



Drill Start: 12:15
Drill End: 14:18
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

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G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-105 (12/04/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/04/2012

SUBSURFACE PROFILE

Depth (ft)	Depth (m)	Description	USCS Classification
0	0	Ground Surface	
		Asphalt/Concrete	
2		***GW*** Asphalt/Gravel mix; dry; well sorted; black (5Y2.5/1)	
4		***ML*** Clay and Sand, medium plasticity; dry; brown (2.5Y5/3)	
6	2		
8		***GP*** Sand, medium to fine; trace silt; rounded; poorly sorted; dry; brown (2.5Y5/3)	
10		***CL*** Silt and Clay, fine, trace sand; rapid dilatancy; medium stiff; dry; gray (5Y5/1)	
12	4		
14			

SAMPLE

Depth	Recovery (inch)
	52/60
	52/60
(07-08)	
	60/60
(10-11)	

Photoionization Detector (PID)

0 10 20 30 40 50

0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Drill Start: 13:03
Drill End: 14:02
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

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Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-105 (12/04/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/04/2012

SUBSURFACE PROFILE			SAMPLE		
Depth	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID) (0 10 20 30 40 50)
	MH Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; dry; gray (5Y5/1)			60/60	0.0
16	***GP*** Sand, fine; trace silt; rounded; poorly sorted; saturated; brown (2.5Y5/3)				0.0
					0.0
18					0.0
					0.0
20 (6)				60/60	0.0
					0.0
22					0.0
	GP Sand, fine; trace silt; rounded; poorly sorted; saturated; gray (5Y5/1)				0.0
	CL Clay, some silt; medium plasticity; dry; gray (5Y5/1)		(23-24)		0.0
24					0.0
	End of Log				
26 (8)					
28					

Drill Start: 13:03
Drill End: 14:02
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

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Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-106 (12/04/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/04/2012

SUBSURFACE PROFILE / SAMPLE

Depth (ft)	Depth (m)	Description	USCS Classification	Sample Depth	Recovery (inch)	Photoionization Detector (PID)
0	0	Ground Surface				
		Asphalt/Concrete				0.0
		Void Void due to obstruction; concrete debris			12/60	0.0
2						0.0
						0.0
4						0.0
					60/60	
		ML Clay and Sand, medium plasticity; dry; brown (2.5Y5/3)				0.0
6	2					0.0
						0.0
8						
		MH Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; moist; brown (2.5Y5/3)		(08-09)		0.0
10						0.0
		GP Sand, fine; trace silt; rounded; poorly sorted; dry; brown (2.5Y5/3)			60/60	0.0
12		***CL*** Clay, some silt; medium plasticity; dry; brown (2.5Y5/3)				0.0
	4					0.0
14				(13-14)		0.0

Drill Start: 14:13
Drill End: 15:01
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

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Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-106 (12/04/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/04/2012

SUBSURFACE PROFILE			SAMPLE		
Depth	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
	GP Sand, medium to fine; trace silt; rounded; poorly sorted; dry; brown (2.5Y5/3)			60/60	0.0, 0.0
16	***GP*** Sand, medium to fine; trace silt; rounded; poorly sorted; saturated; brown (2.5Y5/3)				0.0, 0.0
18	***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; saturated; dry; gray (5Y5/1)				0.0, 0.0
6 20				60/60	0.0, 0.0
22					0.0, 0.0
24	***CL*** Clay, some silt; medium plasticity; dry; gray (5Y5/1)		(24-25)		0.0, 0.0
	End of Log				
26 8 28					

Photoionization Detector (PID) scale: 0 10 20 30 40 50

Drill Start: 14:13
Drill End: 15:01
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

Applied *Eco*Systems, Inc.
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G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-107 (12/04/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/04/2012

SUBSURFACE PROFILE			SAMPLE		
Depth (ft / m)	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
0 / 0	Ground Surface				
	Concrete/Asphalt				0.0
	GW Asphalt/Gravel mix			52/60	0.0
2					0.0
	ML Clay and Sand, medium plasticity; dry; brown (2.5Y5/3)				0.0
4					0.0
				48/60	0.0
6 / 2			(06-07)		0.0
	GP Sand, fine; rounded; poorly sorted; moist; brown (2.5Y5/3)				0.0
8					0.0
	CL Clay, some silt; medium plasticity; dry; brown (2.5Y5/3)				0.0
10				60/60	0.0
12					0.0
					0.0
4			(13-14)		0.0
14					

Photoionization Detector (PID) scale: 0 10 20 30 40 50

Drill Start: 15:11
Drill End: 15:55
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

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G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-107 (12/04/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/04/2012

SUBSURFACE PROFILE			SAMPLE		Photoionization Detector (PID)
Depth	Description	USCS Classification	Depth	Recovery (inch)	0 10 20 30 40 50
					0.0
	MH Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; saturated; brown (2.5Y5/3)			108/60	0.0
16					0.0
			(17-18)		0.0
18	***CL*** Clay, some silt; medium plasticity; dry; gray (5Y5/1)				0.0
6					0.0
20					0.0
22					0.0
					0.0
24	End of Log				
26					
8					
28					

Drill Start: 15:11
Drill End: 15:55
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

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Log of Borehole: SB-108 (12/04/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/04/2012

SUBSURFACE PROFILE			SAMPLE		
Depth (ft / m)	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
0 / 0	Ground Surface				
	Concrete/Asphalt				0.0
				36/60	
2	***GP*** Sand, fine; rounded; poorly sorted; dry; brown; (2.5Y6/3) NOTE: Large pieces of brick were indicated from 7-8 feet below grade.				0.0
					0.0
4					0.0
				36/60	0.0
6					0.0
2			(06-07)		0.0
8					0.0
					0.0
10				48/60	0.0
					0.0
12					0.0
4					0.0
14					0.0

Drill Start: 16:10
Drill End: 16:51
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

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Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-108 (12/04/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/04/2012

SUBSURFACE PROFILE			SAMPLE		
Depth	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
	ML Clay and Sand, medium plasticity; dry; brown (2.5Y5/3)		(14-15)		0.0
				84/60	0.0
16	***GP*** Sand, fine; rounded; poorly sorted; saturated; brown (2.5Y5/3)				0.0
18	***CL*** Clay, some silt; medium plasticity; dry; gray (2.5Y5/2)				0.0
					0.0
20 (6)					0.0
			(20-21)		0.0
					0.0
22	End of Log				
24					
26 (8)					
28					

Photoionization Detector (PID) scale: 0 10 20 30 40 50

Drill Start: 16:10
Drill End: 16:51
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-109 (12/05/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/05/2012

SUBSURFACE PROFILE			SAMPLE		
Depth (ft / m)	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
0 / 0	Ground Surface				
	Concrete/Asphalt				0.0
	ML Clay and Sand, medium plasticity; dry; brown (2.5Y6/4)			100/60	0.0
2					0.0
					0.0
4			(04-05)		0.0
	GP Sand, medium to fine; clay seams 1-3 inches thick throughout; poorly sorted; dry; brown (2.5Y6/4)				0.0
6 / 2					0.0
8					0.0
					0.0
10				52/60	0.0
					0.0
12			(12-13)		0.0
4					0.0
14					

Photoionization Detector (PID) scale: 0 10 20 30 40 50

Drill Start: 9:58
Drill End: 10:51
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-109 (12/05/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/05/2012

SUBSURFACE PROFILE			SAMPLE		
Depth	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
	GP Sand, medium to fine; clay seams 1-3 inches thick throughout; poorly sorted; saturated; brown (2.5Y6/4)			120/60	0.0, 0.0, 0.0, 0.0
	CL Clay, some silt; trace sand; medium plasticity; dry; gray (2.5Y4/1)		(18-19)		0.0, 0.0, 0.0, 0.0, 0.0
	End of Log				

Depth scale: 16, 18, 20, 22, 24, 26, 28; 6, 8

Photoionization Detector (PID) scale: 0 10 20 30 40 50

Drill Start: 9:58
Drill End: 10:51
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-110 (12/05/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/05/2012

SUBSURFACE PROFILE			SAMPLE		
Depth (ft / m)	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
0 / 0	Ground Surface				
	Concrete/Asphalt				0.0
	GP Sand, medium to fine; trace gravel; rounded; poorly sorted; dry; brown (2.5Y5/3)			36/60	0.0
2					0.0
					0.0
4					0.0
				36/60	0.0
6 / 2					0.0
8					0.0
					0.0
10				48/60	0.0
					0.0
12					0.0
	CL Clay, some silt; medium plasticity; dry; brown (2.5Y5/3)		(12-13)		0.0
4 / 14					0.0

Drill Start: 12:01
Drill End: 13:10
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-110 (12/05/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/05/2012

SUBSURFACE PROFILE / SAMPLE

Depth	Description	USCS Classification	Sample Depth	Recovery (inch)	Photoionization Detector (PID)
	GP Sand, fine; rounded; poorly sorted; moist to saturated; brown (2.5Y5/3)				0.0
			(15-16)	60/60	0.0
16	***CL*** Clay, some silt; medium plasticity; dry; brown (2.5Y5/3)				0.0
	MH Silt and Sand, fine; rapid dilatancy; medium stiff; saturated; brown (2.5Y5/3)				0.0
18					0.0
6					0.0
20				60/60	0.0
22					0.0
					0.0
24	***CL*** Clay, some silt; some sand seams 6 inches thick in areas; medium plasticity; dry; gray (2.5Y5/1)		(24-25)		0.0
	End of Log				
26					
8					
28					

Drill Start: 12:01
Drill End: 13:10
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

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G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-111 (12/05/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/05/2012

SUBSURFACE PROFILE / SAMPLE

Depth (ft)	Depth (m)	Description	USCS Classification	Sample Depth	Recovery (inch)	Photoionization Detector (PID)
0	0	Ground Surface				
		Concrete				0.0
					12/60	
2		***GP*** Sand, medium to fine; rounded; poorly sorted; dry; brown (2.5Y5/3)				0.0
						0.0
4						0.0
					48/60	0.0
6	2					0.0
						0.0
8						0.0
10		***GP*** Sand, medium to fine; rounded; poorly sorted; saturated; brown (2.5Y5/3)			60/60	0.0
		CL Clay, some silt; medium plasticity; dry; brown (2.5Y5/3)		(11-12)		0.0
12	4					0.0
14				(13-14)		>50.0

Drill Start: 14:48
Drill End: 16:02
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

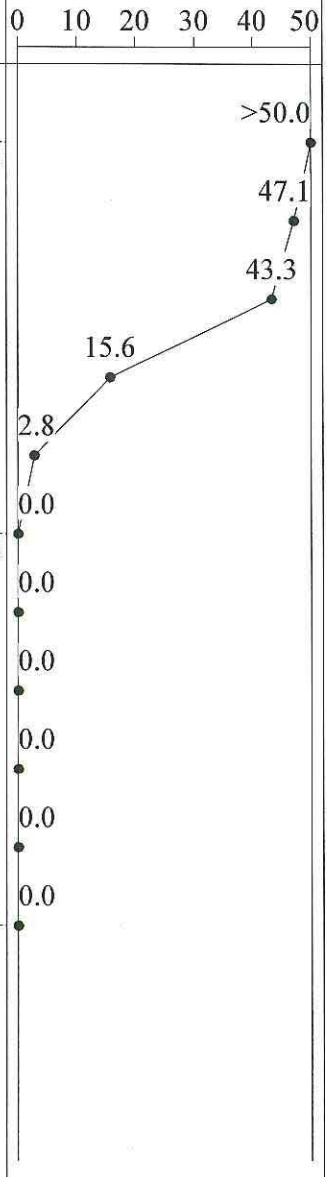
Log of Borehole: SB-111 (12/05/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/05/2012

SUBSURFACE PROFILE / SAMPLE

Depth	Description	USCS Classification	Sample Depth	Recovery (inch)
	GP Sand, fine; trace silt; rounded; poorly sorted; saturated; brown (2.5Y5/3) NOTE: A petroleum odor was indicated			60/60
				60/60
	GP Sand, fine; trace silt; rounded; poorly sorted; saturated; gray (2.5Y5/1) NOTE: No odor indicated.			
	CL Clay, some silt; medium plasticity; dry; gray (2.5Y5/1)		(24.5-25.5)	
	End of Log			

Photoionization Detector (PID)



Depth scale: 16, 18, 20, 22, 24, 26, 28; 6, 8

Drill Start: 14:48
Drill End: 16:02
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

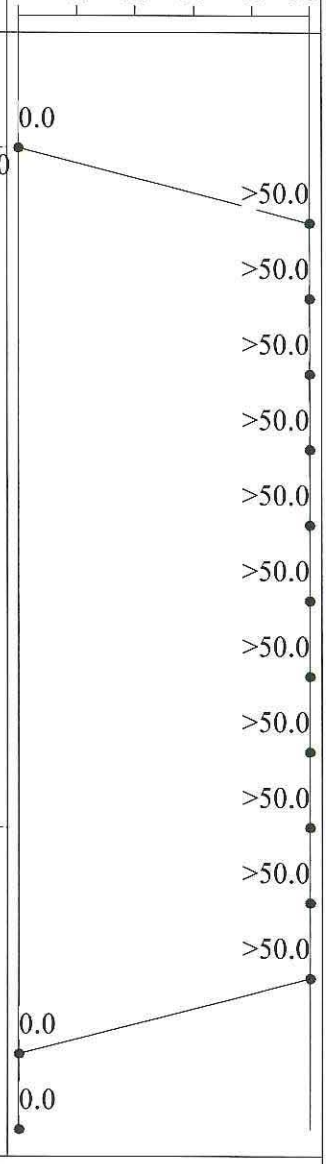
Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-112 (12/06/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/06/2012

SUBSURFACE PROFILE / SAMPLE

Depth (ft)	Depth (m)	Description	USCS Classification	Sample Depth	Recovery (inch)
0	0	Ground Surface			
		Concrete			
2		***GP*** Sand, medium to fine; trace gravel; rounded; poorly sorted; dry; brown (2.5Y5/3)			100/60
4		***GP*** Sand, medium to fine; rounded; poorly sorted; dry; black (5Y2.5/1)		(3.5-4.5)	
6	2	***GP*** Sand, fine; rounded; poorly sorted; dry; brown (2.5Y5/3) NOTE: A petroleum odor was indicated			
8				(8.5-9.5)	
10		***GP*** Sand, fine; rounded; poorly sorted; saturated; brown (2.5Y5/3)			0/60
12	4	***Void*** Void; obstruction NOTE: Tubes came up empty of soil and full of water.			
14					



Drill Start: 11:26
Drill End: 12:27
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
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G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-112 (12/06/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/06/2012

SUBSURFACE PROFILE			SAMPLE		
Depth	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID) (0 10 20 30 40 50)
16					0.0
				0/60	0.0
18					0.0
					0.0
20 (6)					0.0
				12/60	0.0
22					0.0
					0.0
24	***GP*** Sand, fine; rounded; trace gravel; poorly sorted; dry; gray (2.5Y5/1) NOTES: A petroleum odor was indicated.		(24-25)		0.0
26 (8)	Clay was not reached at the bottom of the boring due to obstructions and large amounts of water with odor. It was decided not to drill deeper in fear of penetrating a deeper aquifer.				
28	End of Log				

Drill Start: 11:26
Drill End: 12:27
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-113 (12/06/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/06/2012

SUBSURFACE PROFILE / SAMPLE

Depth (ft)	Depth (m)	Description	USCS Classification	Sample Depth	Recovery (inch)	Photoionization Detector (PID)
0	0	Ground Surface				
		Concrete			60/60	0.0
2		***GP*** Sand, medium to coarse; rounded; poorly sorted; dry; gray (2.5Y5/1)				0.0, 0.0
4		***CL*** Clay, some silt; medium plasticity; dry; gray (2.5Y5/1) NOTE: A petroluem odor was indicated.		(04-06)		>50.0, >50.0
6	2	***Void*** Void; no recovery due to an obstruction				21.3, 0.0
8						0.0, 0.0
10					120/60	0.0
		GP Sand, fine; rounded; poorly sorted; dry; brown (2.5Y5/3)		(10-11)		0.0, 0.0
12	4					0.0, 0.0
14						

Drill Start: 14:56
Drill End: 16:01
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

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G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-113 (12/06/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/06/2012

SUBSURFACE PROFILE			SAMPLE		
Depth	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
16					0.0
					0.0
	GP Sand, fine; rounded; poorly sorted; saturated; brown (2.5Y5/3)				0.0
18					0.0
					0.0
20 (6)				60/60	0.0
					0.0
22					0.0
	CL Clay, some silt; medium plasticity; dry; gray (2.5Y5/1)				0.0
24			(23-24)		0.0
	End of Log				0.0
26 (8)					
28					

Photoionization Detector (PID) scale: 0 10 20 30 40 50

Drill Start: 14:56
Drill End: 16:01
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

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G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

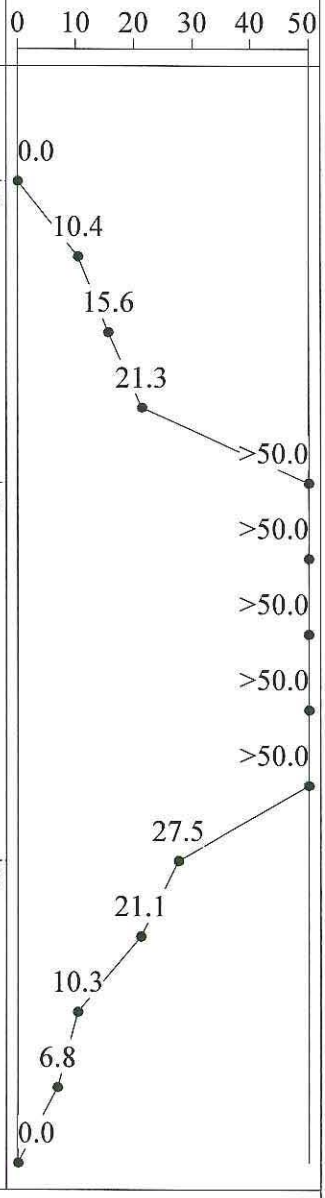
Log of Borehole: SB-114 (12/10/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/10/2012

SUBSURFACE PROFILE / SAMPLE

Depth (ft / m)	Description	USCS Classification	Sample Depth	Recovery (inch)
0 / 0	Ground Surface			
	Concrete			
	GP Sand, medium to fine; trace gravel; rounded; poorly sorted; dry; moist; brown (2.5Y5/3)			12/60
4	***ML*** Clay and Sand, medium plasticity; dry; gray (5Y5/2)		(04-05)	52/60
6 / 2				
8	***GP*** Sand, fine; rounded; poorly sorted; dry; gray (5Y4/1)		(07-08)	52/60
10				
12 / 4				
14				

Photoionization Detector (PID)



Drill Start: 10:12
Drill End: 11:13
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

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Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-114 (12/10/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/10/2012

SUBSURFACE PROFILE			SAMPLE		
Depth	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
	GP Sand, fine; rounded; poorly sorted; moist; gray (5Y4/1)			96/60	0.0
16	***GP*** Sand, fine; rounded; poorly sorted; saturated; gray (5Y4/1)				0.0
18					0.0
					0.0
6	***CL*** Clay, some silt; medium plasticity; dry; gray (5Y4/1)				0.0
20			(20-21)		0.0
22					0.0
	End of Log				0.0
24					0.0
26					0.0
8					
28					

Photoionization Detector (PID) scale: 0 10 20 30 40 50

Drill Start: 10:12
Drill End: 11:13
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

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Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-115 (12/10/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/10/2012

SUBSURFACE PROFILE			SAMPLE		
Depth (ft / m)	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
0 / 0	Ground Surface				
	Topsoil				0.0
	GP Sand, medium to fine; trace gravel; rounded; poorly sorted; dry; moist; brown (2.5Y5/3)			48/60	0.0
2					0.0
					0.0
4					0.0
					0.0
				56/60	0.0
6 / 2			(06-07)		0.0
					0.0
8	***GP*** Sand, medium to fine; trace gravel and rock; rounded; poorly sorted; dry; brown (2.5Y5/3)				0.0
					0.0
10	***GP*** Sand, some clay, medium to fine; rounded; poorly sorted; dry; gray (5Y4/1)			96/60	0.0
					0.0
12					0.0
4			(13-14)		0.0
14					

Drill Start: 11:46
Drill End: 13:16
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
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Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-115 (12/10/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/10/2012

SUBSURFACE PROFILE			SAMPLE		
Depth	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID) (0 10 20 30 40 50)
16	***GP*** Sand, some clay, medium to fine; rounded; poorly sorted; saturated; gray (5Y4/1)				0.0
					0.0
					0.0
18	***CL*** Clay, some sand; fine; poorly sorted; medium plasticity; dry; gray (5Y4/1)		(17-18)		0.0
	End of Log				0.0
20 (6)					0.0
					0.0
22					0.0
					0.0
24					0.0
					0.0
26 (8)					
28					

Drill Start: 11:46
Drill End: 13:16
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

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Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-116 (12/11/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/11/2012

SUBSURFACE PROFILE / SAMPLE

Depth (ft / m)	Description	USCS Classification	Sample Depth	Recovery (inch)	Photoionization Detector (PID)
0 / 0	Ground Surface				
	Topsoil				0.0
	GP Sand, medium to fine; trace gravel; rounded; poorly sorted; dry; brown (2.5Y5/3)			48/60	0.0
2					0.0
	CL Clay, some silt and sand; fine; medium plasticity; rapid dilatancy; dry; brown (2.5Y5/4)		(04-05)		0.0
4					0.0
	GP Sand, fine; rounded; poorly sorted; dry; brown (2.5Y5/4)			52/60	0.0
6 / 2					0.0
	GP Sand, some clay, fine; rounded; poorly sorted; medium plasticity; dry; brown (2.5Y5/4)		(07-08)		0.0
8					0.0
	GP Sand, fine; rounded; poorly sorted; moist to saturated; brown (2.5Y5/4)				

Drill Start: 9:42
Drill End: 10:25
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

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G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-116 (12/11/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/11/2012

SUBSURFACE PROFILE / SAMPLE

Depth	Description	USCS Classification	Sample Depth	Recovery (inch)	Photoionization Detector (PID)
				36/60	0.0
11	***MH*** Silt and Sand, fine; rapid dilatancy; saturated; gray (5Y5/1)				0.0
	CL Clay, some silt, medium plasticity; dry; gray (5Y5/1)				0.0
			(12-13)		0.0
13 – 4					0.0
	Rock Obstruction; rock or bedrock				0.0
	End of Log				
15					0.0
					0.0
17					0.0
					0.0
19					0.0

Photoionization Detector (PID) scale: 0 10 20 30 40 50

Drill Start: 9:42
Drill End: 10:25
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

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Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-117 (12/11/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/11/2012

SUBSURFACE PROFILE			SAMPLE		
Depth (ft / m)	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
0 / 0	Ground Surface				
	Topsoil				0.0
	GP Sand, fine; trace sand and gravel; rounded; poorly sorted; dry; black (5Y2.5/1)			48/60	0.0
2					0.0
					0.0
4					0.0
				60/60	0.0
6 / 2	***CL*** Clay, some sand; fine; poorly sorted: dry; gray (5Y5/1)		(06-07)		0.0
	GP Sand, fine; rounded; poorly sorted; moist at 10 feet below grade; gray (5Y5/1)				0.0
8					0.0
			(09-10)		0.0
10				60/60	0.0
	GP Sand, medium to fine; rounded; poorly sorted; saturated; brown (2.5Y5/4)				0.0
12					0.0
4					0.0
14					

Drill Start: 10:31
Drill End: 11:31
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-117 (12/11/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/11/2012

SUBSURFACE PROFILE			SAMPLE		
Depth	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
	MH Silt and Sand, fine; rapid dilatancy; saturated; gray (5Y5/1)			60/60	0.0, 0.0, 0.0, 0.0, 0.0, 0.0
	CL Clay, some silt, medium plasticity; rapid dilatancy; dry; gray (5Y5/1)		(18-19)		
6	***Rock*** Obstruction; rock or bedrock				
	End of Log				

Photoionization Detector (PID) scale: 0 10 20 30 40 50

Drill Start: 10:31
Drill End: 11:31
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

Applied *Eco*Systems, Inc.
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G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-118 (12/11/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/11/2012

SUBSURFACE PROFILE / SAMPLE

Depth (ft / m)	Description	USCS Classification	Sample Depth	Recovery (inch)	Photoionization Detector (PID)
0 / 0	Ground Surface				
	Topsoil with some gravel				0.0
	GP Sand, fine; rounded; poorly sorted; dry; brown (2.5Y5/4)			48/60	0.0
2					0.0
					0.0
4	***CL*** Clay, some sand; medium plasticity; fine; poorly sorted; dry; brown (2.5Y5/4)		(3.5-4.5)		0.0
	GP Sand, fine; rounded; poorly sorted; dry; brown (2.5Y5/4)			52/60	0.0
6 / 2					0.0
8			(07-08)		0.0
					0.0
10	***GP*** Sand, fine; rounded; poorly sorted; moist; brown (2.5Y5/4)			60/60	0.0
	GP Sand, fine; rounded; poorly sorted; saturated; brown (2.5Y5/4)				0.0
12 / 4					0.0
14					0.0

Drill Start: 15:20
Drill End: 16:15
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-118 (12/11/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/11/2012

SUBSURFACE PROFILE			SAMPLE		
Depth	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID) (0 10 20 30 40 50)
	MH Silt and Sand, fine; rapid dilatancy; saturated; gray (5Y5/1)			60/60	0.0
16	***CL*** Clay, some silt, medium plasticity; rapid dilatancy; dry; gray (5Y5/1)		(16-17)		0.0
					0.0
18	End of Log				0.0
					0.0
20 (6)					0.0
					0.0
22					0.0
					0.0
24					0.0
					0.0
26 (8)					
28					

Drill Start: 15:20
Drill End: 16:15
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

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Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-119 (04/30/2013)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 04/30/2013

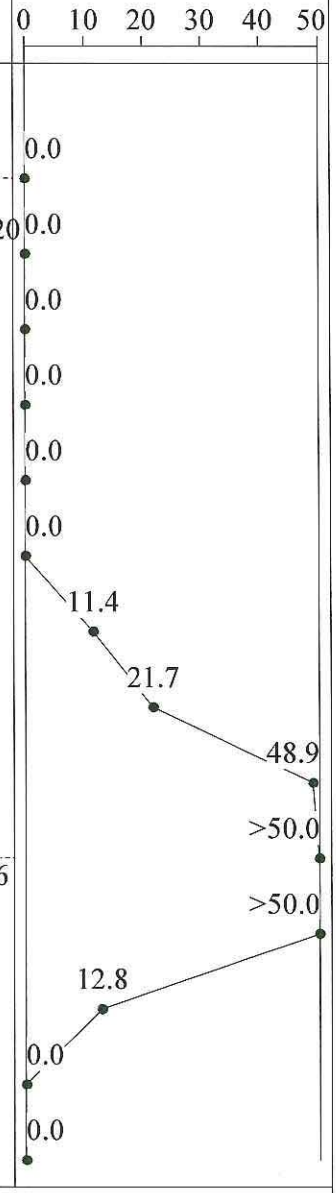
SUBSURFACE PROFILE

Depth (ft)	Depth (m)	Description	USCS Classification
0	0	Ground Surface	
		Concrete	
		GW Sand, medium to fine grained; poorly sorted; trace gravel; brown (7.5YR4/4)	
6	2	***GW*** Sand, fine grained; well sorted; trace clay; rapid dilatancy; medium stiff; gray (5Y5/1)	
14	4		

SAMPLE

Depth	Recovery (inch)
	108/120
(10-11)	84/96

Photoionization Detector (PID)



Drill Start: 13:24
Drill End: 14:18
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-119 (04/30/2013)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 04/30/2013

SUBSURFACE PROFILE			SAMPLE		
Depth	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID) (0 10 20 30 40 50)
	CL Clay, some sand; medium plasticity; gray (5Y5/1)				0.0
16					0.0
					0.0
			(17-18)		0.0
18	End of Log				
6 20					
22					
24					
26 8					
28					

Drill Start: 13:24
Drill End: 14:18
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

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G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-120 (04/30/2013)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 04/30/2013

SUBSURFACE PROFILE			SAMPLE		
Depth (ft / m)	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
0 / 0	Ground Surface				
	Concrete				0.0
	CL Clay, some sand; medium plasticity; brown (2.5Y5/4)			96/120	0.0
2					0.0
					0.0
4					0.0
					0.0
6					0.0
2					0.0
					0.0
8					
	CL Clay, some sand; medium plasticity; gray (5Y5/1)		(08-09)		0.0
					0.0
10				84/96	
	GW Sand, fine grained; well sorted; gray (5Y5/1); saturated with a petroleum odor				0.0
					0.0
12					0.0
4					
14					0.0

Drill Start: 14:39
Drill End: 15:01
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
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Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-120 (04/30/2013)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 04/30/2013

SUBSURFACE PROFILE			SAMPLE		
Depth	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
	CL Clay, some silt; medium plasticity; dry; gray (5Y5/1)				0.0, 0.0, 0.0
	GW Sand, fine grained; well sorted; gray (5Y5/1)				0.0
	End of Log				

Depth scale: 16, 18, 20, 22, 24, 26, 28; 6, 8

Photoionization Detector (PID) scale: 0, 10, 20, 30, 40, 50

Drill Start: 14:39
Drill End: 15:01
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

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G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-121 (04/30/2013)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 04/30/2013

SUBSURFACE PROFILE			SAMPLE		
Depth (ft / m)	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
0 / 0	Ground Surface				
	Concrete				
	CL Clay, some sand; medium plasticity; brown (2.5Y5/4)			96/120	0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 9.7, 11.3
				84/96	28.6, 45.1, >50.0, >50.0
	GW Sand, fine grained; well sorted; brown (2.5Y5/4)				

Photoionization Detector (PID) scale: 0, 10, 20, 30, 40, 50

Drill Start: 15:11
Drill End: 15:49
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
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G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-121 (04/30/2013)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 04/30/2013

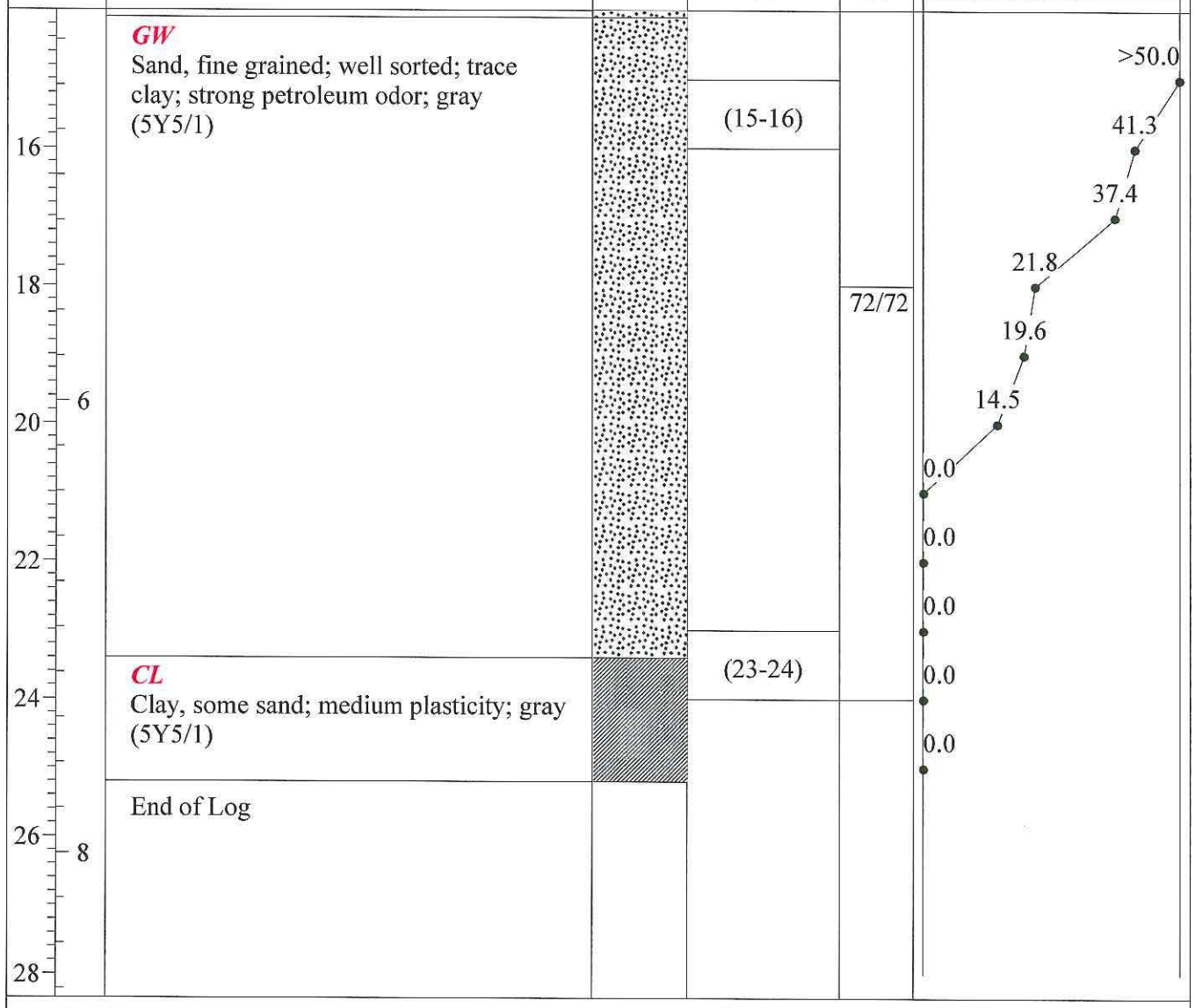
SUBSURFACE PROFILE

Depth	Description	USCS Classification
	GW Sand, fine grained; well sorted; trace clay; strong petroleum odor; gray (5Y5/1)	
	CL Clay, some sand; medium plasticity; gray (5Y5/1)	
	End of Log	

SAMPLE

Depth	Recovery (inch)
(15-16)	72/72
(23-24)	

Photoionization Detector (PID)



Drill Start: 15:11
Drill End: 15:49
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-122 (04/30/2013)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 04/30/2013

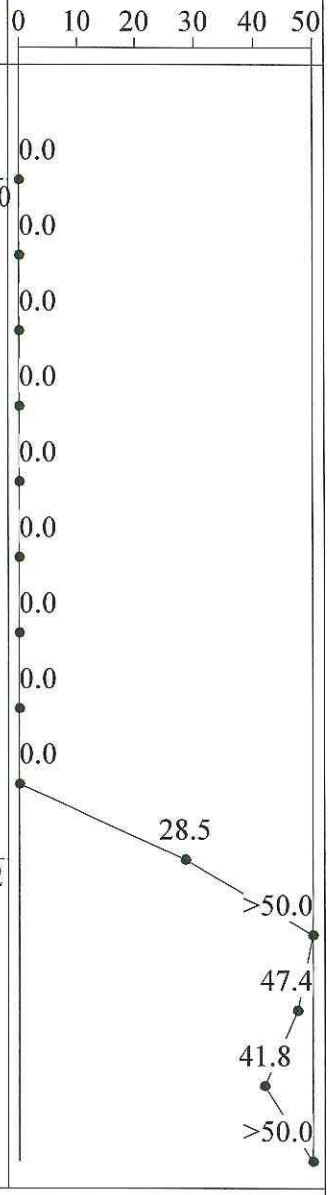
SUBSURFACE PROFILE

Depth (ft)	Depth (m)	Description	USCS Classification
0	0	Ground Surface	
		Topsoil	
		GW Sand, medium to coarse grained; poorly sorted; trace gravel; brown (2.5Y5/4)	
		CL Clay, some sand; medium plasticity; brown (2.5Y5/4)	
		GW Sand, fine to medium grained; well sorted; trace clay; saturated with a petroleum odor; brown (2.5Y5/4)	

SAMPLE

Depth	Recovery (inch)
	84/120
	62/72

Photoionization Detector (PID)



Drill Start: 15:58
Drill End: 16:25
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-122 (04/30/2013)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 04/30/2013

SUBSURFACE PROFILE			SAMPLE		
Depth	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID)
					>50.0
			(15-16)		>50.0
16	***CL*** Clay, some sand; meduim plasticity; gray (5Y5/1)				
	End of Log				
18					
20 (6)					
22					
24					
26 (8)					
28					

Drill Start: 15:58
Drill End: 16:25
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-123 (04/30/2013)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 04/30/2013

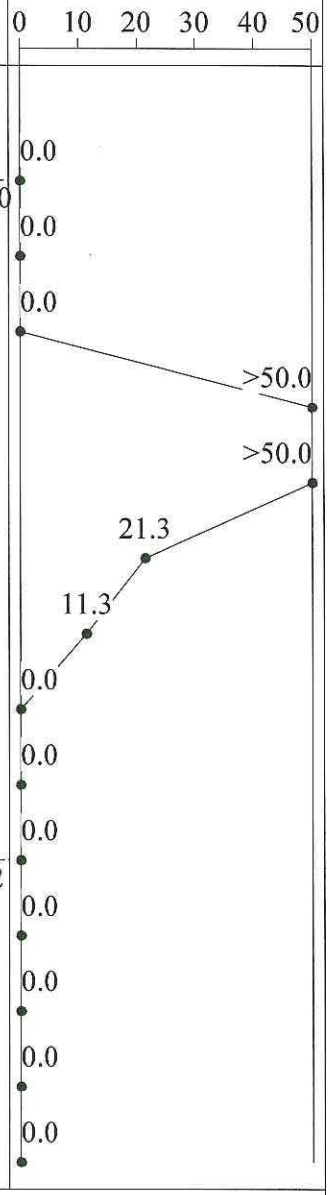
SUBSURFACE PROFILE

Depth (ft)	Depth (m)	Description	USCS Classification
0	0	Ground Surface	
		Topsoil	
2		***GW*** Sand, fine to medium grained; well sorted; brown (2.5Y5/4)	
4		***CL*** Clay, some sand; medium plasticity; black (5Y6/1)	
6	2	***GW*** Sand, fine grained; well sorted; petroleum odor; gray (5Y5/1)	
8		***CL*** Clay, some sand; medium plasticity; black (5Y6/1)	
10		***GW*** Sand, fine grained; well sorted; brown (2.5Y5/4)	
12	4	***GW*** Sand, fine grained; well sorted; trace clay; saturated; brown (2.5Y5/4)	
14			

SAMPLE

Depth	Recovery (inch)
(5-6)	96/120
	72/72

Photoionization Detector (PID)



Drill Start: 16:31
Drill End: 17.11
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-123 (04/30/2013)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 04/30/2013

SUBSURFACE PROFILE			SAMPLE		
Depth	Description	USCS Classification	Depth	Recovery (inch)	Photoionization Detector (PID) (0 10 20 30 40 50)
					0.0
16					0.0
	End of Log				
18					
20 (6)					
22					
24					
26 (8)					
28					

Drill Start: 16:31
Drill End: 17.11
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

Attachment # 2: Monitoring Well Construction Logs

Applied *Eco*Systems
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

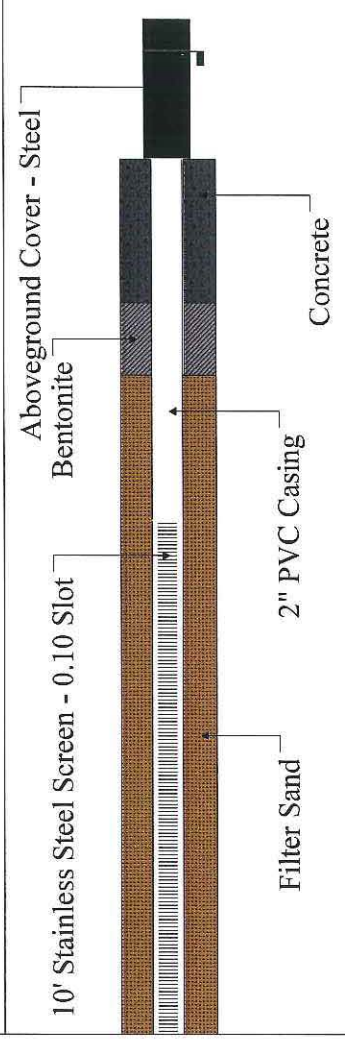
Log of Borehole: MW-100S (03/07/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/07/2012

SUBSURFACE PROFILE

Depth (ft / m)	Description	USCS Classification	Photoionization Detector (PID) (0 10 20 30 40 50)
-3 / -1	Ground Surface		
	Concrete		
1 / 3	***GW*** Sand, medium to fine; well sorted; dry; brown (7.5YR4/4). NOTE: Appears to be fill material.		
5 / 7 (2)	***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 4 inches thick; dry; brownish yellow (10YR6/6).		
9 / 11	***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 4 inches thick; moist, brownish yellow (10YR6/6).		

Well Completion Details



Drill Start: 12:43
Drill End: 15:36
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-100S (03/07/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/07/2012

SUBSURFACE PROFILE

Depth	Description	USCS Classification	Photoionization Detector (PID) 0 10 20 30 40 50	Well Completion Details
13, 15, 17, 19, 21 (5)	***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 4 inches thick; saturated, brownish yellow (10YR6/6).			
23 (7)	***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 4 inches thick; saturated, gray (5Y6/1)			
25	***CL*** Clay, some silt, medium plasticity; dry; gray (5Y5/1).			
	End of Log			

Drill Start: 12:43
Drill End: 15:36
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

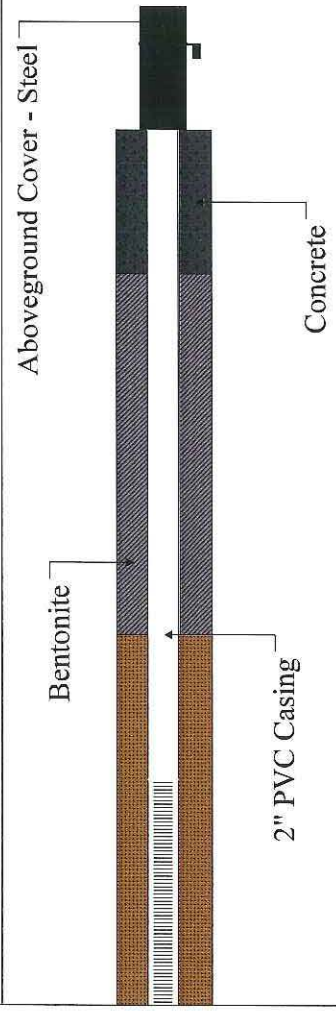
Applied *Eco*Systems
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-101S (03/08/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/08/2012

SUBSURFACE PROFILE

Depth (ft / m)	Description	USCS Classification	Photoionization Detector (PID) (0 10 20 30 40 50)	Well Completion Details
-3 / -1	Ground Surface			
	Concrete			
1 / 3 / 5 / 7 / 9 / 2	***GW*** Sand, fine to medium; well sorted; soft; dry; brown (7.5YR4/4). NOTE: brick, concrete, and large stones; rounded throughout.			
11	***GP*** Sand, fine to coarse; rounded; loose; poorly sorted; brown (7.5YR4/4)			



Drill Start: 12:12
Drill End: 13:31
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-101S (03/08/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/08/2012

SUBSURFACE PROFILE

Depth	Description	USCS Classification	Photoionization Detector (PID) (0 10 20 30 40 50)	Well Completion Details
13				
15	***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 4 inches thick; dry; brownish yellow (10YR6/6).			
5 / 17	***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 4 inches thick; saturated, brownish yellow (10YR6/6).			Fliter Sand; 10' Stainless Steel Screen - 0.10 Slot
19				
21	***CL*** Clay, some silt, medium plasticity; dry; gray (5Y5/1).			
23 / 7				
25	End of Log			

Drill Start: 12:12
Drill End: 13:31
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

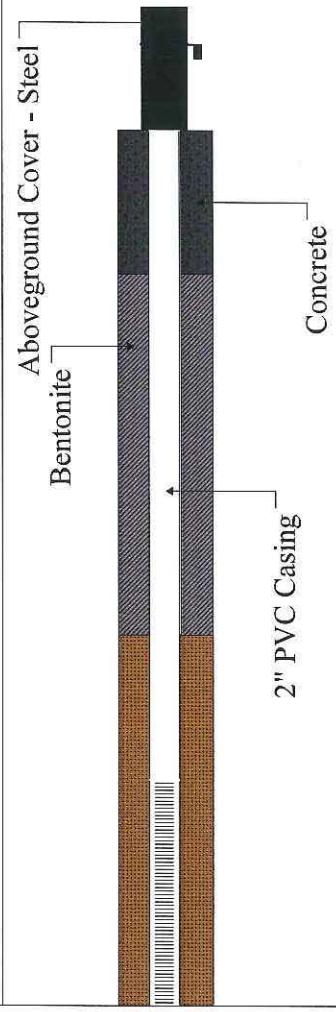
Applied *Eco*Systems
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-102S (03/08/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/08/2012

SUBSURFACE PROFILE

Depth (ft / m)	Description	USCS Classification	Photoionization Detector (PID) (0 10 20 30 40 50)	Well Completion Details
-3 / -1	Ground Surface			
	Concrete			
1 / 3 / 5 / 7 / 9 / 11 (2)	***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 2 inches thick; dry; brownish yellow (10YR6/6).			



Drill Start: 15:20
Drill End: 15:48
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

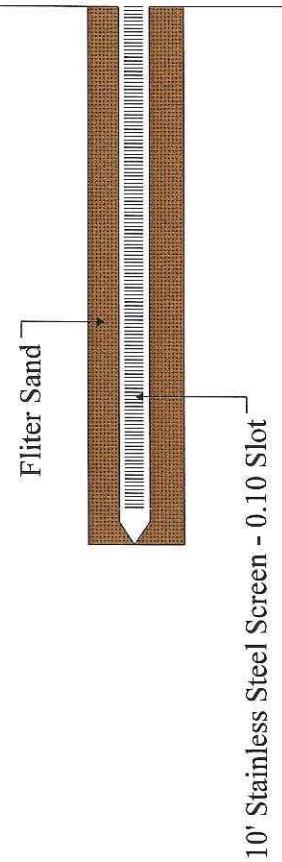
Applied *Eco*Systems
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-102S (03/08/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/08/2012

SUBSURFACE PROFILE

Depth	Description	USCS Classification	Photoionization Detector (PID) 0 10 20 30 40 50	Well Completion Details
13				
15	***GP*** Sand, fine to coarse; rounded; poorly sorted; trace silt; moist; brown (7.5YR4/4)			
5	***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; fine grained lenses of sand interbedded throughout the silt and sand, ranging between 1 and 2 inches thick; saturated; brownish yellow (10YR6/6).			
17				
19				
	GW Sand, fine to medium; rounded; loose; well sorted; saturated; very pale brown (10YR7/3).			
21				
23	7			
	Obstruction Refusal; Rock or Boulder			
25	End of Log			



Drill Start: 15:20
Drill End: 15:48
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

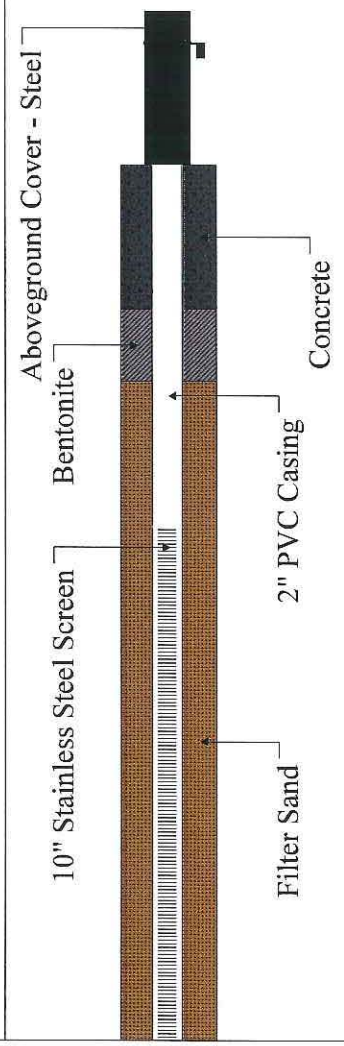
Applied *Eco*Systems
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-103S (03/13/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/13/2012

SUBSURFACE PROFILE

Depth (ft / m)	Description	USCS Classification	Photoionization Detector (PID) (0 10 20 30 40 50)	Well Completion Details
-3				
-1	Ground Surface			
	Concrete			
1	***GP*** Sand, fine to coarse; rounded; poorly sorted; trace silt; dry; dark yellowish brown (10YR3/6).			
3	***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; dry; light olive brown (2.5Y5/4).			
5	***GW*** Sand, fine to medium; well sorted; dry; pale yellow (2.5Y7/3). NOTE: Fill Material			
2				
7	***MH*** Silt and Sand, fine; trace clay; rapid dilatancy; medium stiff; dry; light olive brown (2.5Y5/4)			
9	***GW*** Sand, fine to medium; well sorted; moist; light olive brown (2.5Y5/4). NOTE: Fill Material			
11				



Drill Start: 14:25
Drill End: 15:50
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-103S (03/13/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 03/13/2012

SUBSURFACE PROFILE

Depth	Description	USCS Classification	Photoionization Detector (PID) (0 10 20 30 40 50)	Well Completion Details
13, 15	***GP*** Sand, fine to medium; rounded; well sorted; trace silt; saturated; dark gray (2.5Y4/1). NOTE: Strong solvent/petroleum odor			
5, 17	***CL*** Clay, some silt, medium plasticity; dry; light olive gray (5Y6/2). NOTE: Odor indicated.			
	Rock			
19, 21	***CL*** Clay; trace sand, fine to coarse; poorly sorted; nonplastic; hard; light olive gray (5Y6/2). NOTE: Odor indicated.			
7, 23, 25	End of Log			

Drill Start: 14:25
Drill End: 15:50
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

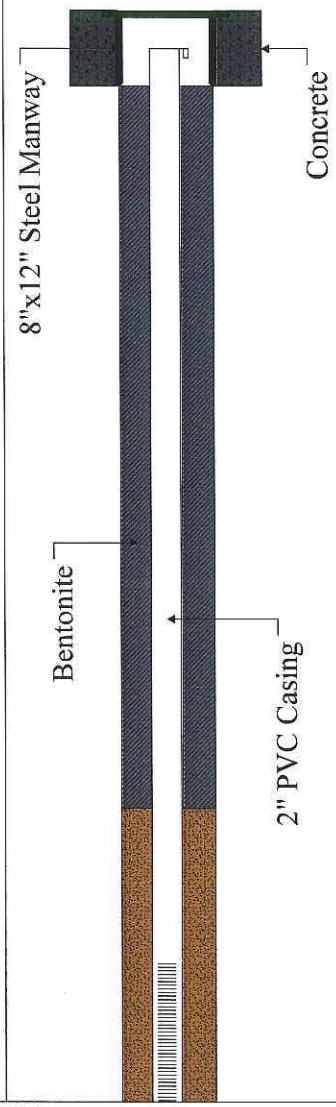
Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-104S (12/05/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/05/2012

SUBSURFACE PROFILE

Depth (ft / m)	Description	USCS Classification	Photoionization Detector (PID) 0 10 20 30 40 50	Well Completion Details
0 / 0	Ground Surface			
	Concrete/Asphalt			
2	***ML*** Clay and Sand, medium plasticity; dry; brown (2.5Y6/4)			
4				
6 / 2	***GP*** Sand, medium to fine; clay seams 1-3 inches thick throughout; poorly sorted; dry; brown (2.5Y6/4)			
8				
10				
12 / 4				
14				



Drill Start: 10:52
Drill End: 11:48
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-104S (12/05/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/05/2012

SUBSURFACE PROFILE

Depth	Description	USCS Classification	Photoionization Detector (PID) 0 10 20 30 40 50	Well Completion Details
16	***GP*** Sand, medium to fine; clay seams 1-3 inches thick throughout; poorly sorted; saturated; brown (2.5Y6/4)			Filter Sand; 5' Stainless Steel Screen
18	***CL*** Clay, some silt; trace sand; medium plasticity; dry; gray (2.5Y4/1)			
20 (6)				
22				
24	End of Log			
26 (8)				
28				

Drill Start: 10:52
Drill End: 11:48
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

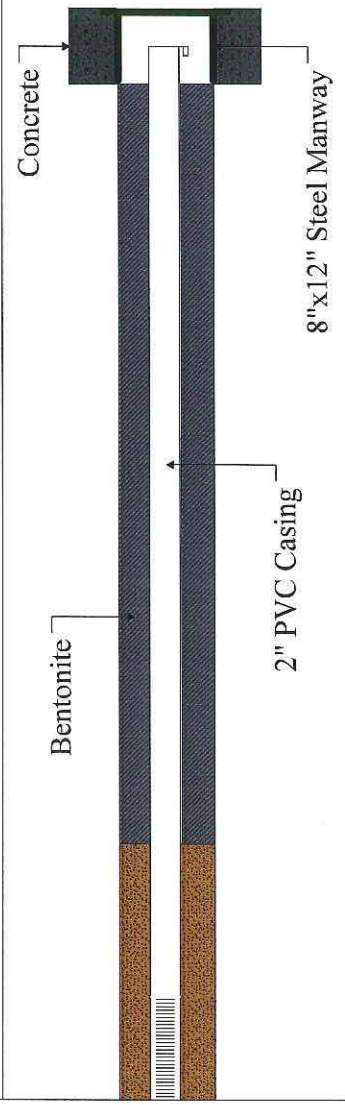
Log of Borehole: MW-105S (12/05/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/05/2012

SUBSURFACE PROFILE

Depth (ft)	Depth (m)	Description	USCS Classification	Photoionization Detector (PID) (0 10 20 30 40 50)
0	0	Ground Surface		
		Concrete/Asphalt		
		GP Sand, medium to fine; trace gravel; rounded; poorly sorted; dry; brown (2.5Y5/3)		
2				
4				
6	2			
8				
10				
12				
	4	***CL*** Clay, some silt; medium plasticity; dry; brown (2.5Y5/3)		
14				

Well Completion Details



Drill Start: 13:11
Drill End: 14:33
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

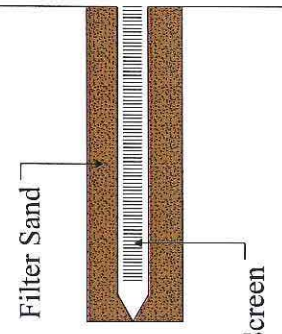
Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-105S (12/05/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/05/2012

SUBSURFACE PROFILE

Depth	Description	USCS Classification	Photoionization Detector (PID) 0 10 20 30 40 50	Well Completion Details
	GP Sand, fine; rounded; poorly sorted; moist to saturated; brown (2.5Y5/3)			
16	***CL*** Clay, some silt; medium plasticity; dry; brown (2.5Y5/3)			
18	***MH*** Silt and Sand, fine; rapid dilatancy; medium stiff; saturated; brown (2.5Y5/3)			
20 (6)				
22				
24	***CL*** Clay, some silt; some sand seams 6 inches thick in areas; medium plasticity; dry; gray (2.5Y5/1)			
26 (8)	End of Log			
28				



Drill Start: 13:11
Drill End: 14:33
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

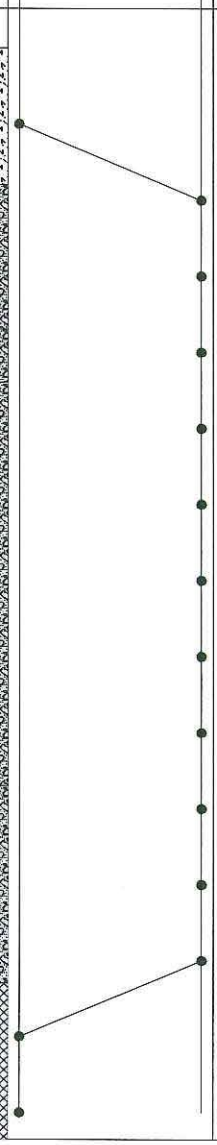
Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

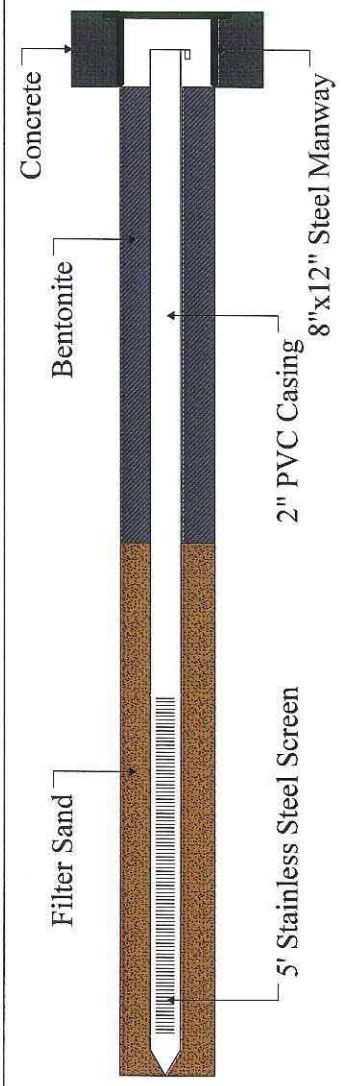
Log of Borehole: MW-106S (12/06/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/06/2012

SUBSURFACE PROFILE

Depth (ft)	Depth (m)	Description	USCS Classification
0	0	Ground Surface	
		Concrete	
2		***GP*** Sand, medium to fine; trace gravel; rounded; poorly sorted; dry; brown (2.5Y5/3)	
4		***GP*** Sand, medium to fine; rounded; poorly sorted; dry; black (5Y2.5/1)	
6	2	***GP*** Sand, fine; rounded; poorly sorted; dry; brown (2.5Y5/3) NOTE: A petroleum odor was indicated	
10		***GP*** Sand, fine; rounded; poorly sorted; saturated; brown (2.5Y5/3)	
12	4	***Void*** Void; obstruction NOTE: Tubes came up empty of soil and full of water.	
14			





Drill Start: 12:29
Drill End: 14:17
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-106S (12/06/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/06/2012

SUBSURFACE PROFILE

Depth	Description	USCS Classification	Photoionization Detector (PID) 0 10 20 30 40 50	Well Completion Details
16				
18				
20 (6)				
22				
24	***GP*** Sand, fine; rounded; trace gravel; poorly sorted; dry; gray (2.5Y5/1) NOTES: A petroleum odor was indicated. Clay was not reached at the bottom of the boring due to obstructions and large amounts of water with odor. It was decided not to drill deeper in fear of penetrating a deeper aquifer.			
26 (8)				
28	End of Log			

Drill Start: 12:29
Drill End: 14:17
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

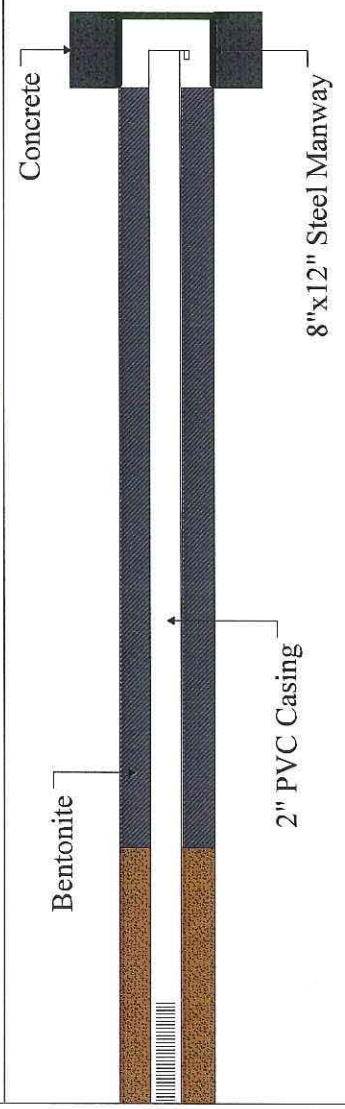
Log of Borehole: MW-107S (12/06/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/06/2012

SUBSURFACE PROFILE

Depth (ft / m)	Description	USCS Classification	Photoionization Detector (PID) (0 10 20 30 40 50)
0 / 0	Ground Surface		
	Concrete		
2	***GP*** Sand, medium to coarse; rounded; poorly sorted; dry; gray (2.5Y5/1)		
4	***CL*** Clay, some silt; medium plasticity; dry; gray (2.5Y5/1) NOTE: A petroluem odor was indicated.		
6 / 2	***Void*** Void; no recovery due to an obstruction		
8			
10	***GP*** Sand, fine; rounded; poorly sorted; dry; brown (2.5Y5/3)		
12 / 4			
14			

Well Completion Details



Drill Start: 16:02
Drill End: 17:16
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-107S (12/06/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/06/2012

SUBSURFACE PROFILE

Depth	Description	USCS Classification	Photoionization Detector (PID) 0 10 20 30 40 50	Well Completion Details
16				Filter Sand; 5' Stainless Steel Screen
18	***GP*** Sand, fine; rounded; poorly sorted; saturated; brown (2.5Y5/3)			
20 (6)				
22	***CL*** Clay, some silt; medium plasticity; dry; gray (2.5Y5/1)			
24	End of Log			
26 (8)				
28				

Drill Start: 16:02
Drill End: 17:16
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

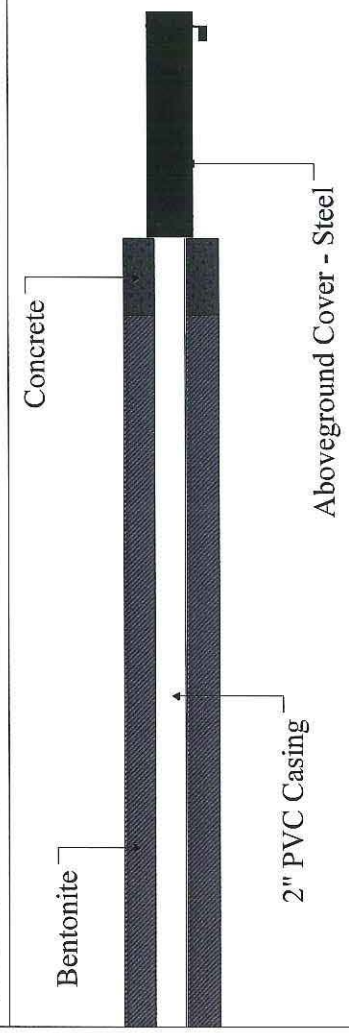
Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-108S (12/10/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/10/2012

SUBSURFACE PROFILE

Depth (ft / m)	Description	USCS Classification	Photoionization Detector (PID) 0 10 20 30 40 50	Well Completion Details
ft: -4, -2, 0, 2, 4, 6, 8, 10; m: 1, 3	Ground Surface			
	Topsoil			
	GP Sand, medium to fine; trace gravel; rounded; poorly sorted; dry; moist; brown (2.5Y5/3)			
	GP Sand, medium to fine; trace gravel and rock; rounded; poorly sorted; dry; brown (2.5Y5/3)			



Drill Start: 13:18
Drill End: 15:33
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-108S (12/10/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/10/2012

SUBSURFACE PROFILE

Depth	Description	USCS Classification	Photoionization Detector (PID) 0 10 20 30 40 50	Well Completion Details
	GP Sand, some clay, medium to fine; rounded; poorly sorted; dry; gray (5Y4/1)			
12				
14	***GP*** Sand, some clay, medium to fine; rounded; poorly sorted; saturated; gray (5Y4/1)			Filter Sand
16				
5	***CL*** Clay, some sand; fine; poorly sorted; medium plasticity; dry; gray (5Y4/1)			5' Stainless Steel Screen
18				
	End of Log			
20				
22				
7				
24				

Drill Start: 13:18
Drill End: 15:33
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

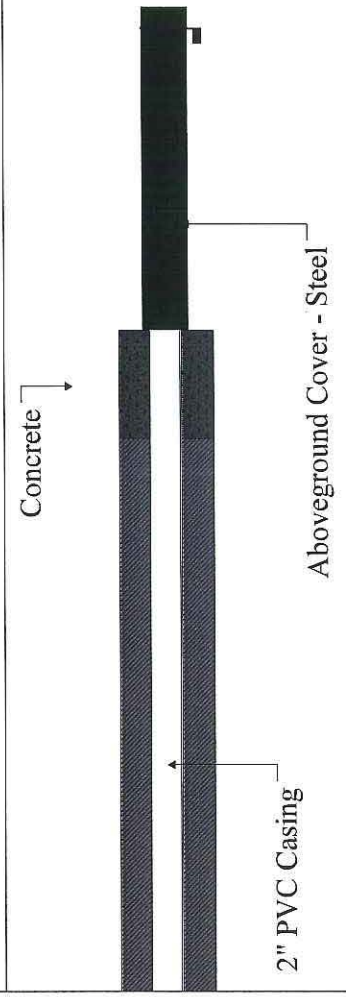
Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-109S (12/11/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/11/2012

SUBSURFACE PROFILE

Depth (ft / m)	Description	USCS Classification	Photoionization Detector (PID) 0 10 20 30 40 50	Well Completion Details
-4				
-2				
0	Ground Surface			
	Topsoil			
	GP Sand, medium to fine; trace gravel; rounded; poorly sorted; dry; brown (2.5Y5/3)			
2				
1				
4	***CL*** Clay, some silt and sand; fine; medium plasticity; rapid dilatancy; dry; brown (2.5Y5/4)			
	GP Sand, fine; rounded; poorly sorted; dry; brown (2.5Y5/4)			



Drill Start: 12:28
Drill End: 13:19
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-109S (12/11/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/11/2012

SUBSURFACE PROFILE

Depth	Description	USCS Classification	Photoionization Detector (PID) (0 10 20 30 40 50)	Well Completion Details
7	***GP*** Sand, some clay, fine; rounded; poorly sorted; medium plasticity; dry; brown (2.5Y5/4)			Bentonite
9	***GP*** Sand, fine; rounded; poorly sorted; moist to saturated; brown (2.5Y5/4)			
3				
11	***MH*** Silt and Sand, fine; rapid dilatancy; saturated; gray (5Y5/1)			Filter Sand
	CL Clay, some silt, medium plasticity; dry; gray (5Y5/1)			
13				5" Stainless Steel Screen
	Rock Obstruction; rock or bedrock			
	End of Log			
15				

Drill Start: 12:28
Drill End: 13:19
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

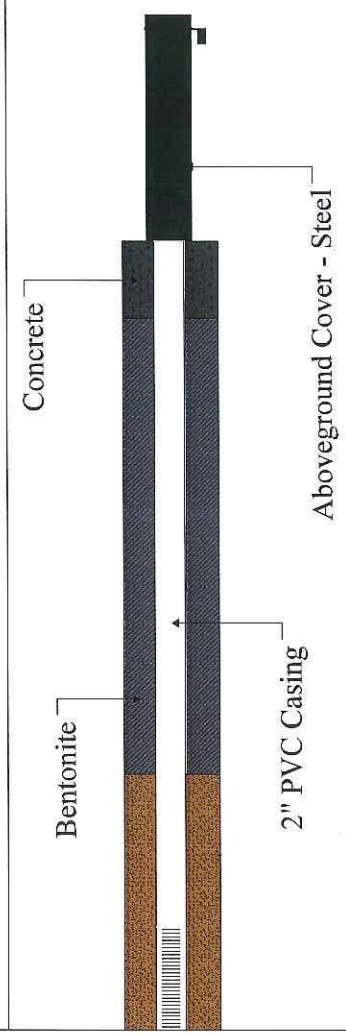
Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-110S (12/11/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/11/2012

SUBSURFACE PROFILE

Depth (ft / m)	Description	USCS Classification	Photoionization Detector (PID) 0 10 20 30 40 50	Well Completion Details
ft: -4, -2, 0, 2, 4, 6, 8, 10; m: 1, 3	Ground Surface			
	Topsoil			
	GP Sand, fine; trace sand and gravel; rounded; poorly sorted; dry; black (5Y2.5/1)			
	CL Clay, some sand; fine; poorly sorted: dry; gray (5Y5/1)			
	GP Sand, fine; rounded; poorly sorted; moist at 10 feet below grade; gray (5Y5/1)			



Drill Start: 11:32
Drill End: 12:22
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

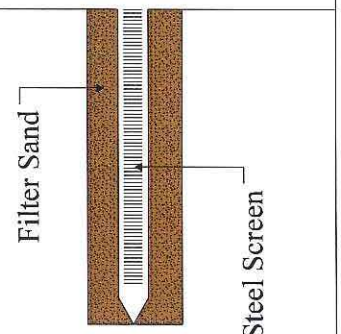
Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-110S (12/11/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/11/2012

SUBSURFACE PROFILE

Depth	Description	USCS Classification	Photoionization Detector (PID) 0 10 20 30 40 50	Well Completion Details
12	***GP*** Sand, medium to fine; rounded; poorly sorted; saturated; brown (2.5Y5/4)			
14	***MH*** Silt and Sand, fine; rapid dilatancy; saturated; gray (5Y5/1)			
16 – 5				
18	***CL*** Clay, some silt, medium plasticity; rapid dilatancy; dry; gray (5Y5/1)			
20	***Rock*** Obstruction; rock or bedrock			
	End of Log			
22 – 7				
24				



Drill Start: 11:32
Drill End: 12:22
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

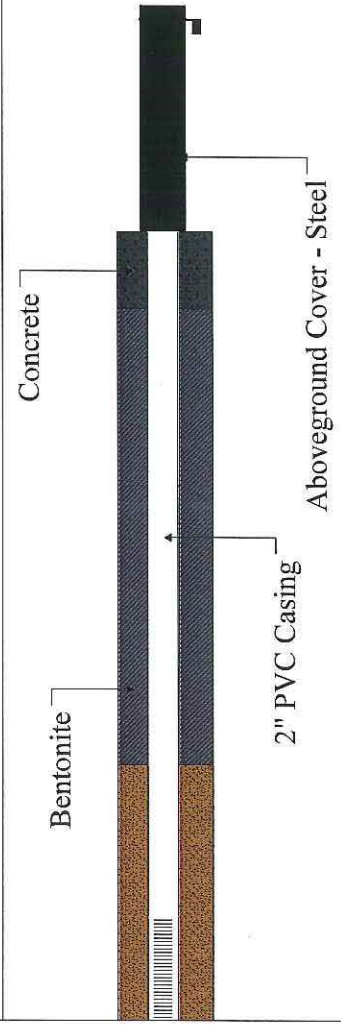
Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-111S (12/11/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/11/2012

SUBSURFACE PROFILE

Depth (ft / m)	Description	USCS Classification	Photoionization Detector (PID) (0 10 20 30 40 50)	Well Completion Details
ft: -4, -2, 0, 2, 4, 6, 8, 10 / m: 1, 3	Ground Surface			
	Topsoil with some gravel			
	GP Sand, fine; rounded; poorly sorted; dry; brown (2.5Y5/4)			
	CL Clay, some sand; medium plasticity; fine; poorly sorted; dry; brown (2.5Y5/4)			
	GP Sand, fine; rounded; poorly sorted; dry; brown (2.5Y5/4)			



Drill Start: 16:16
Drill End: 17:19
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-111S (12/11/2012)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 12/11/2012

SUBSURFACE PROFILE

Depth	Description	USCS Classification	Photoionization Detector (PID) 0 10 20 30 40 50	Well Completion Details
	GP Sand, fine; rounded; poorly sorted; moist; brown (2.5Y5/4)			
12	***GP*** Sand, fine; rounded; poorly sorted; saturated; brown (2.5Y5/4)			Filter Sand; 5' Stainless Steel Screen
14	***MH*** Silt and Sand, fine; rapid dilatancy; saturated; gray (5Y5/1)			
16 – 5	***CL*** Clay, some silt, medium plasticity; rapid dilatancy; dry; gray (5Y5/1)			
18	End of Log			
20				
22 – 7				
24				

Drill Start: 16:16
Drill End: 17:19
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-106SR (04/26/2013)

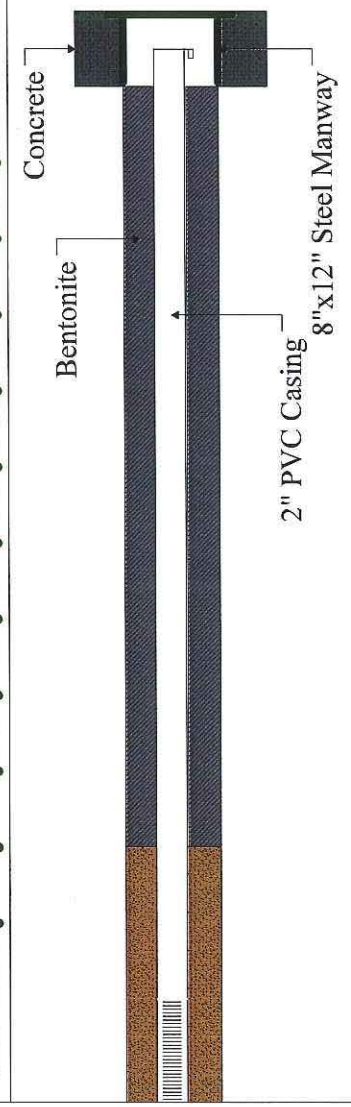
Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 04/26/2013

SUBSURFACE PROFILE

Depth (ft)	Depth (m)	Description	USCS Classification
0	0	Ground Surface	
		Concrete	
2		***GP*** Sand, medium to fine; trace gravel; rounded; poorly sorted; dry; brown (2.5Y5/3)	
4		***GP*** Sand, medium to fine; rounded; poorly sorted; dry; black (5Y2.5/1)	
6	2	***GP*** Sand, fine; rounded; poorly sorted; dry; brown (2.5Y5/3) NOTE: A petroleum odor was indicated	
10		***GP*** Sand, fine; rounded; poorly sorted; saturated; brown (2.5Y5/3)	
12	4	***Void*** Void; obstruction NOTE: Tubes came up empty of soil and full of water.	
14			

Photoionization Detector (PID): 0 10 20 30 40 50

Well Completion Details



Drill Start: 10:11
Drill End: 11:23
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 1 of 2

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: MW-106SR (04/26/2013)

Project Number: 11-4317-102
Project Name: 100-12990-0012 (Former Building 9)
Address: Delphi - Flint West Facility
City: Flint, Michigan
Drill Date: 04/26/2013

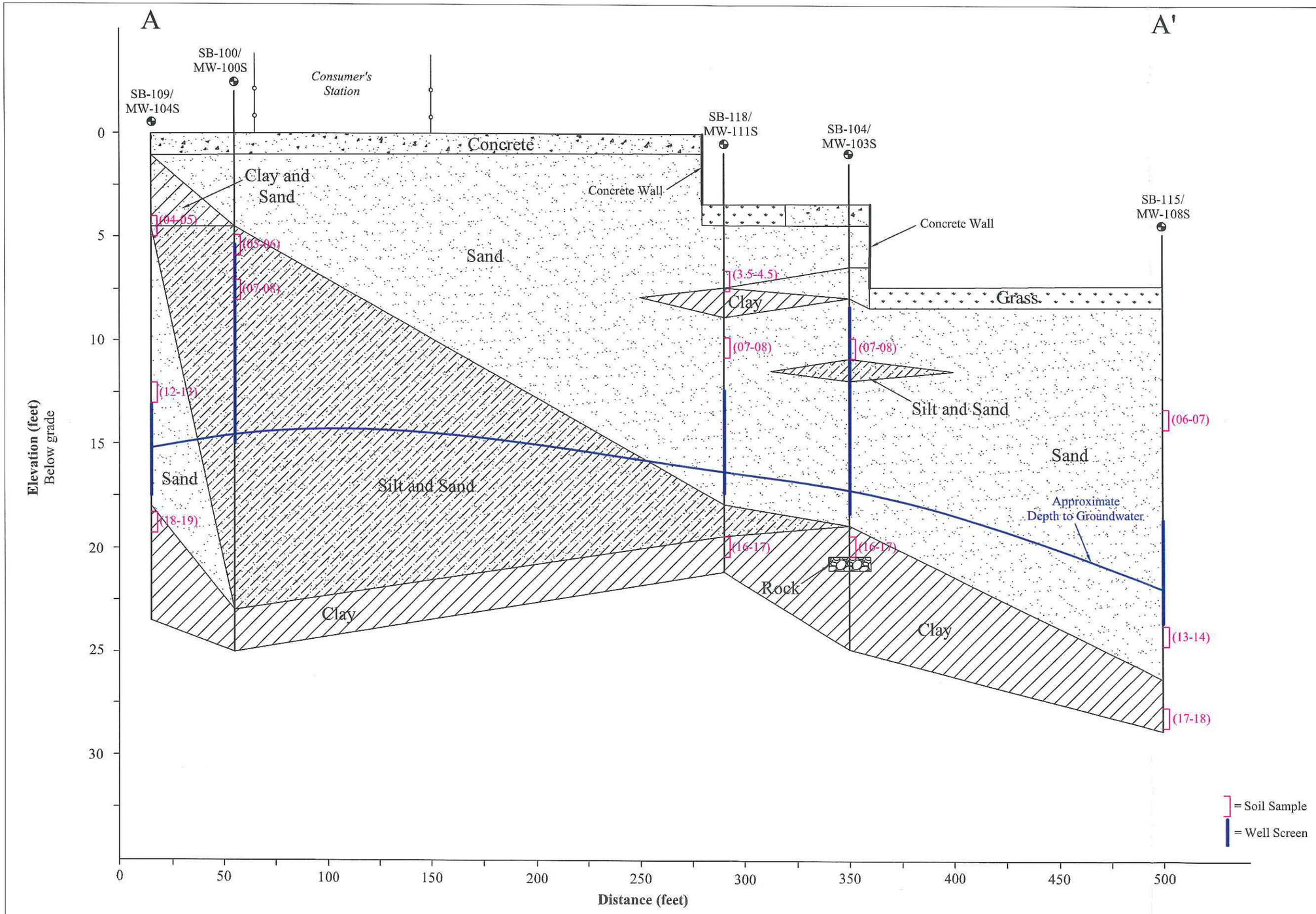
SUBSURFACE PROFILE

Depth	Description	USCS Classification	Photoionization Detector (PID) 0 10 20 30 40 50	Well Completion Details
16, 18, 20, 22, 24, 26, 28				Filter Sand; 5' Stainless Steel Screen
6				
8	***GP*** Sand, fine; rounded; trace gravel; poorly sorted; dry; gray (2.5Y5/1) NOTES: A petroleum odor was indicated. Clay was not reached at the bottom of the boring due to obstructions and large amounts of water with odor. It was decided not to drill deeper in fear of penetrating a deeper aquifer.			
	End of Log			

Drill Start: 10:11
Drill End: 11:23
Drill Method: Geoprobe 6600 - Hollow Stem Augers
Diameter: 4.25-inch ID

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Josh Adams
Sheet: 2 of 2

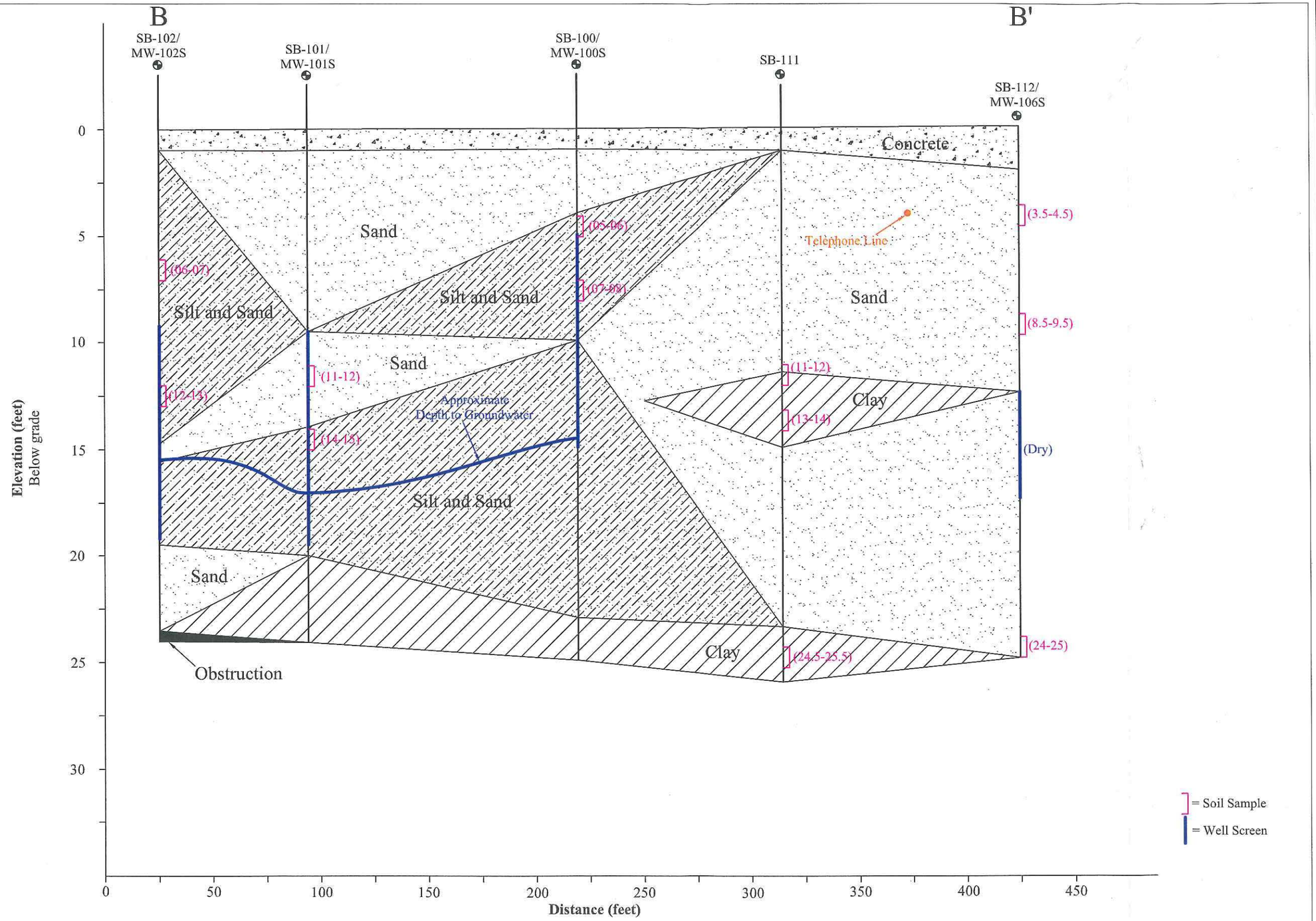
ATTACHMENT #3: CROSS SECTION DIAGRAMS



DATE: 2013	SCALE: As Noted
PROJECT: 11-4317	FIGURE: TBD

Cross Section Diagram
A - A'
Delphi - Flint West Facility
Former Building 9
Flint, Michigan
100-12990-0012

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: 810.715.2525; Fax: 810.715.2526



DATE:	SCALE:
2013	As Noted
PROJECT:	FIGURE:
11-4317	TBD

Cross Section Diagram
B - B'
Delphi - Flint West Facility
Former Building 9
Flint, Michigan
100-12990-0012

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services
G-4300 South Saginaw Street, Burton, Michigan 48529
Phone: 810.715.2525; Fax: 810.715.2526

ATTACHMENT #4: SOIL AND GROUNDWATER ANALYTICAL TABLES

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

Applied *Eco*Systems, Inc.

Environmental Management, Consulting & Field Services

Soil Analytical Tables

Sampling Event - March 7 and 8, 2012

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

SOIL VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		SB-100 (03/07/2012) (05-06)		SB-100 (03/07/2012) (07-08)		SB-101 (03/08/2012) (11-12)		SB-101 (03/08/2012) (14-15)		SB-102 (03/08/2012) (06-07)		SB-102 (03/08/2012) (12-13)	
Date Collected		3/7/2012		3/7/2012		3/8/2012		3/8/2012		3/8/2012		3/8/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
INORGANICS													
Date Analyzed		3/12-14/2012		3/12-14/2012		3/12-14/2012		3/12-14/2012		3/12-14/2012			
Analytical Method Number		Mulitple		Mulitple		Mulitple		Mulitple		Mulitple			
CONSTITUENT (mg/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Chromium VI	18540-29-9	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Cyanide	57-12-5	ND	0.15	ND	0.15	ND	0.15	ND	0.15	ND	0.15	ND	0.15
METALS													
Date Analyzed		3/13/2012		3/13/2012		3/13/2012		3/13/2012		3/13/2012		3/13/2012	
Metal Digestion		3/13/2012		3/13/2012		3/13/2012		3/13/2012		3/13/2012		3/13/2012	
Analytical Method Number		6020, 7471A		6020, 7471A		6020, 7471A		6020, 7471A		6020, 7471A		6020, 7471A	
CONSTITUENT (mg/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Arsenic	7440-38-2	1.15	0.10	1.64	0.10	0.43	0.10	1.14	0.10	1.58	0.10	0.39	0.10
Barium	7440-39-3	37.90	1.00	37.10	1.00	4.02	1.00	38.60	1.00	26.10	1.00	6.90	1.00
Cadmium	7440-43-9	ND	0.20	ND	0.20	ND	0.20	ND	0.20	ND	0.20	ND	0.20
Chromium	7440-47-3	2.90	0.50	3.19	0.50	0.69	0.50	4.27	0.50	16.40	0.50	1.20	0.50
Copper	7440-50-8	3.05	0.50	4.36	0.50	0.52	0.50	6.01	0.50	21.10	0.50	0.71	0.50
Lead	7439-92-1	6.29	0.30	6.08	0.30	0.95	0.30	7.11	0.30	15.20	0.30	1.18	0.30
Mercury	7439-97-6	ND	0.05	ND	0.05	ND	0.05	ND	0.05	0.058	0.05	ND	0.05
Selenium	7782-49-2	ND	0.50	ND	0.50	ND	0.50	ND	0.50	ND	0.50	ND	0.50
Silver	7440-22-4	ND	0.20	ND	0.20	ND	0.20	ND	0.20	ND	0.20	ND	0.20
Zinc	7440-66-6	10.10	1.00	15.00	1.00	1.77	1.00	15.80	1.00	27.10	1.00	2.19	1.00
POLYCHLORINATED BIPHENYLS (PCBs)/PESTICIDES													
Date Analyzed		3/12/2012		3/12/2012		3/12/2012		3/12/2012		3/12/2012		3/12/2012	
Date Extracted		3/12/2012		3/12/2012		3/12/2012		3/12/2012		3/12/2012		3/12/2012	
Analytical Method Number		8082A		8082A		8082A		8082A		8082A		8082A	
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
PCB-1016	12674-11-2	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
PCB-1242	53469-21-9	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
PCB-1221	11104-28-2	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
PCB-1232	11141-16-5	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
PCB-1248	12672-29-6	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
PCB-1254	11097-69-1	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
PCB-1260	11096-82-5	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

SOIL VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		SB-100 (03/07/2012) (05-06)		SB-100 (03/07/2012) (07-08)		SB-101 (03/08/2012) (11-12)		SB-101 (03/08/2012) (14-15)		SB-102 (03/08/2012) (06-07)		SB-102 (03/08/2012) (12-13)	
Date Collected		3/7/2012		3/7/2012		3/8/2012		3/8/2012		3/8/2012		3/8/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
SEMI-VOLATILE ORGANICS COMPOUNDS (SVOCs)													
Date Analyzed		3/13/2012		3/13/2012		3/13/2012		3/13/2012		3/13/2012		3/13/2012	
Analytical Method Number		8270C		8270C		8270C		8270C		8270C		8270C	
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Acenaphthene	83-32-9	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Acenaphthylene	208-96-8	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Anthracene	120-12-7	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Benzo(a)anthracene	56-55-3	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Benzo(b)fluoranthene	205-99-2	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Benzo(k)fluoranthene	207-08-9	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Benzo(ghi)perylene	191-24-2	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Benzo(a)pyrene	50-32-8	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
bis(2-Chloroethoxy)methane	111-91-1	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
bis(2-Chloroethyl)ether	111-44-4	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
bis(2-Chloroisoprpyl)ether	108-60-1	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
bis(2-Ethylhexyl)phthalate	117-81-7	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
4-Bromophenyl phenyl ether	101-55-3	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Butyl benzyl phthalate	85-60-7	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
4-Chloroaniline	106-47-8	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
2-Chloronaphthalene	91-58-7	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
4-Chloro-3-methylphenol	59-50-7	ND	280	ND	280	ND	280	ND	280	ND	280	ND	280
2-Chlorophenol	95-57-8	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
4-Chlorophenyl phenyl ether	7005-72-3	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Chrysene	218-01-9	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
p,m-Cresol	3/4-Cresol	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
o-Cresol	95-48-7	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Dibenzo(ah)anthracene	53-70-3	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Dibenzofuran	132-64-9	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
di-n-Butyl phthalate	84-74-2	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
1,2-Dichlorobenzene	95-50-1	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
1,3-Dichlorobenzene	541-73-1	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
1,4-Dichlorobenzene	106-46-7	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
3,3-Dichlorobenzidine	91-94-1	ND	2,000	ND	2,000	ND	2,000	ND	2,000	ND	2,000	ND	2,000

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

SOIL VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		SB-100 (03/07/2012) (05-06)		SB-100 (03/07/2012) (07-08)		SB-101 (03/08/2012) (11-12)		SB-101 (03/08/2012) (14-15)		SB-102 (03/08/2012) (06-07)		SB-102 (03/08/2012) (12-13)	
Date Collected		3/7/2012		3/7/2012		3/8/2012		3/8/2012		3/8/2012		3/8/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
SEMI-VOLATILE ORGANICS COMPOUNDS (SVOCs) - continued													
Date Analyzed		3/13/2012		3/13/2012		3/13/2012		3/13/2012		3/13/2012		3/13/2012	
Analytical Method Number		8270C		8270C		8270C		8270C		8270C		8270C	
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
2,4-Dichlorophenol	120-83-2	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Diethyl phthalate	84-66-2	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
2,4-Dimethylphenol	105-67-9	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Dimethyl phthalate	131-11-3	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
4,6-Dinitro-2-methylphenol	534-52-1	ND	830	ND	830	ND	830	ND	830	ND	830	ND	830
2,4-Dinitrophenol	51-28-5	ND	830	ND	830	ND	830	ND	830	ND	830	ND	830
2,4-Dinitrotoluene	121-14-2	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
2,6-Dinitrotoluene	606-20-2	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
1,2-Diphenylhydrazine	122-66-7	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
di-n-Octyl phthalate	117-84-0	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Fluoranthene	206-44-0	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Fluorene	86-73-7	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Hexachlorobenzene	118-74-1	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Hexachlorobutadiene	87-68-3	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Hexachlorocyclopentadiene	77-47-4	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Hexachloroethane	67-72-1	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Isophorone	78-59-1	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
2-Methylnaphthalene	91-57-6	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Naphthalene	91-20-3	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
2-Nitroaniline	88-74-4	ND	830	ND	830	ND	830	ND	830	ND	830	ND	830
3-Nitroaniline	99-09-2	ND	830	ND	830	ND	830	ND	830	ND	830	ND	830
4-Nitroaniline	100-01-6	ND	830	ND	830	ND	830	ND	830	ND	830	ND	830
Nitrobenzene	98-95-3	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
2-Nitrophenol	88-75-5	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
4-Nitrophenol	100-02-7	ND	830	ND	830	ND	830	ND	830	ND	830	ND	830
N-Nitrosodiphenylamine	86-30-6	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
N-Nitrsodi-n-propylamine	621-64-7	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Pentachlorophenol	87-86-5	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330

Notes:
Results in parts per billion
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Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

SOIL VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		SB-100 (03/07/2012) (05-06)		SB-100 (03/07/2012) (07-08)		SB-101 (03/08/2012) (11-12)		SB-101 (03/08/2012) (14-15)		SB-102 (03/08/2012) (06-07)		SB-102 (03/08/2012) (12-13)	
Date Collected		3/7/2012		3/7/2012		3/8/2012		3/8/2012		3/8/2012		3/8/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
SEMI-VOLATILE ORGANICS COMPOUNDS (SVOCs) - continued													
Date Analyzed		3/13/2012		3/13/2012		3/13/2012		3/13/2012		3/13/2012		3/13/2012	
Analytical Method Number		8270C		8270C		8270C		8270C		8270C		8270C	
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Phenanthrene	85-01-8	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Phenol	108-95-2	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
Pyrene	129-00-0	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
1,2,4-Trichlorobenzene	120-82-1	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
2,4,5-Trichlorophenol	95-95-4	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
2,4,6-Trichorophenol	88-06-2	ND	330	ND	330	ND	330	ND	330	ND	330	ND	330
VOLATILE ORGANICS COMPOUNDS (VOCs)													
Date Analyzed		3/9/2012		3/9/2012		3/9/2012		3/9/2012		3/9/2012		3/9/2012	
Analytical Method Number		8260B/5035		8260B/5035		8260B/5035		8260B/5035		8260B/5035		8260B/5035	
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Diethyl ether	60-29-7	ND	300	ND	300	ND	300	ND	300	ND	300	ND	200
Acetone	67-64-1	ND	2,000	ND	2,000	ND	1,000	ND	2,000	ND	1,000	ND	1,000
Methyl iodide	74-88-4	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
Carbon disulfide	75-15-0	ND	400	ND	400	ND	400	ND	400	ND	300	ND	300
tert-Methyl butyl ether (MTBE)	1634-04-4	ND	300	ND	300	ND	300	ND	300	ND	300	ND	200
Acrylonitrile	107-13-1	ND	200	ND	200	ND	100	ND	200	ND	400	ND	100
2-Butanone (MEK)	78-93-3	ND	1,200	ND	1,200	ND	1,100	ND	1,200	ND	950	ND	890
Dichlorodifluoromethane	75-71-8	ND	400	ND	400	ND	400	ND	400	ND	300	ND	300
Chloromethane	74-87-3	ND	400	ND	400	ND	400	ND	400	ND	300	ND	300
Vinyl chloride	75-01-4	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
Bromomethane	74-83-9	ND	300	ND	300	ND	300	ND	300	ND	300	ND	200
Chloroethane	75-00-3	ND	400	ND	400	ND	400	ND	400	ND	300	ND	300
Terichlorofluoromethane	75-69-4	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
1,1-Dichloroethene	75-35-4	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
Methylene chloride	75-09-2	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
trans-1,2-Dichloroethene	156-60-5	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
1,1-Dichloroethane	75-34-3	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
cis-1,2-Dichloroethene	156-59-2	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
Tetrahydrofuran	109-99-9	ND	2,000	ND	2,000	ND	1,000	ND	2,000	ND	1,000	ND	1,000

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

SOIL VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		SB-100 (03/07/2012) (05-06)		SB-100 (03/07/2012) (07-08)		SB-101 (03/08/2012) (11-12)		SB-101 (03/08/2012) (14-15)		SB-102 (03/08/2012) (06-07)		SB-102 (03/08/2012) (12-13)	
Date Collected		3/7/2012		3/7/2012		3/8/2012		3/8/2012		3/8/2012		3/8/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
VOLATILE ORGANICS COMPOUNDS (VOCs) - continued													
Date Analyzed		3/9/2012		3/9/2012		3/9/2012		3/9/2012		3/9/2012		3/9/2012	
Analytical Method Number		8260B/5035		8260B/5035		8260B/5035		8260B/5035		8260B/5035		8260B/5035	
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Chloroform	67-66-3	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
Bromochloromethane	74-97-5	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
1,1,1-Trichlororthane	71-55-6	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
4-Methyl-2-pentanone (MIBK)	10810-1	ND	4,000	ND	4,000	ND	4,000	ND	4,000	ND	3,000	ND	3,000
2-Hexanone	591-78-6	ND	4,000	ND	4,000	ND	4,000	ND	4,000	ND	3,000	ND	3,000
Carbon tetrachloride	56-23-5	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
Benzene	71-43-2	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
1,2-Dichloroethane	107-06-2	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
Trichloroethene	79-01-6	ND	80	ND	90	ND	70	ND	80	*330 (D-100)*	60	ND	60
1,2-Dichloropropane	78-87-5	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
Bromodichloromethane	75-27-4	ND	200	ND	200	ND	100	ND	200	ND	100	ND	1,000
Dibromomethane	74-95-3	ND	400	ND	400	ND	400	ND	400	ND	300	ND	300
cis-1,3-Dichloropropane	10061-01-5	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
Toluene	108-88-3	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
trans-1,3-Dichloropropane	10061-02-6	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
1,1,2-Trichloroethane	79-00-5	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
Tetrachloroethene	127-18-4	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
trans-1,4-Dichloro-2-butene	110-57-6	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
Dibromochloromethane	124-48-1	ND	200	ND	200	ND	700	ND	200	ND	100	ND	100
1,2-Dibromoethane	106-93-4	ND	30	ND	30	ND	30	ND	30	ND	30	ND	20
Chlorobenzene	108-90-7	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
1,1,1,2-Teterchloroethane	630-20-6	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
Ethylbenzene	100-41-4	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
p,m-Xylene	No CAS #	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
o-Xylene	95-47-6	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
Styrene	100-42-5	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
Isopropylbenzene	98-82-8	ND	400	ND	400	ND	400	ND	400	ND	300	ND	300
Bromoform	75-25-2	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
1,1,2,2-Tetrachloroethane	79-34-5	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

D = Residential Drinking Water Criterion

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

SOIL VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		SB-100 (03/07/2012) (05-06)		SB-100 (03/07/2012) (07-08)		SB-101 (03/08/2012) (11-12)		SB-101 (03/08/2012) (14-15)		SB-102 (03/08/2012) (06-07)		SB-102 (03/08/2012) (12-13)	
Date Collected		3/7/2012		3/7/2012		3/8/2012		3/8/2012		3/8/2012		3/8/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
VOLATILE ORGANICS COMPOUNDS (VOCs) - continued													
Date Analyzed		3/9/2012		3/9/2012		3/9/2012		3/9/2012		3/9/2012		3/9/2012	
Analytical Method Number		8260B/5035		8260B/5035		8260B/5035		8260B/5035		8260B/5035		8260B/5035	
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
1,2,3-Trichloropropane	96-18-4	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
n-Propylbenzene	103-65-1	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
Bromobenzene	108-86-1	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
1,3,5-Trimethylbenzene	108-67-8	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
tert-Butylbenzene	98-06-6	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
1,2,4-Trimethylbenzene	95-63-6	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
sec-Butylbenzene	135-98-8	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
p-Isopropyltoluene	99-87-6	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
1,3-Dichlorobenzene	541-73-1	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
1,4-Dichlorobenzene	106-46-7	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
1,2-Dichlorobenzene	95-50-1	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
1,2,3-Trimethylbenzene	526-73-8	ND	200	ND	200	ND	100	ND	200	ND	100	ND	100
n-Butylbenzene	104-51-8	ND	80	ND	90	ND	70	ND	80	ND	60	ND	60
Hexachloroethane	67-72-1	ND	500	ND	500	ND	400	ND	500	ND	400	ND	400
1,2-Dibromo-3-chloropropane	96-12-8	ND	400	ND	400	ND	400	ND	400	ND	300	ND	300
1,2,4-Trichlorobenzene	120-82-1	ND	540	ND	570	ND	480	ND	540	ND	420	ND	390
1,2,3-Trichlorobenzene	87-61-6	ND	540	ND	570	ND	480	ND	540	ND	420	ND	390
Naphthalene	91-20-3	ND	540	ND	570	ND	480	ND	540	ND	420	ND	390
2-Methylnaphthalene	91-57-6	ND	540	ND	570	ND	480	ND	540	ND	420	ND	390

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

SOIL VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		SB-103 (03/08/2012) (09-10)		SB-103 (03/08/2012) (12-13)		DUP-1 (03/08/2012) (SB-102)		Field Blank (03/07/2012)		Field Blank (03/08/2012)		Trip Blank (03/07/2012)	
Date Collected		3/8/2012		3/8/2012		3/8/2012		3/7/2012		3/8/2012		3/7/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
INORGANICS													
Date Analyzed		3/12-14/2012		3/12-14/2012		3/12-14/2012		NA		NA		NA	
Analytical Method Number		Mulitple		Mulitple		Mulitple		NA		NA		NA	
CONSTITUENT (mg/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Chromium VI	18540-29-9	ND	1	ND	1	ND	1	NA	NA	NA	NA	NA	NA
Cyanide	57-12-5	ND	0.15	ND	0.15	ND	0.15	NA	NA	NA	NA	NA	NA
METALS													
Date Analyzed		3/13/2012		3/13/2012		3/13/2012		NA		NA		NA	
Metal Digestion		3/13/2012		3/13/2012		3/13/2012		NA		NA		NA	
Analytical Method Number		6020, 7471A		6020, 7471A		6020, 7471A		NA		NA		NA	
CONSTITUENT (mg/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Arsenic	7440-38-2	1.51	0.10	1.05	0.10	*5.93 (B-5.8)*	0.10	NA	NA	NA	NA	NA	NA
Barium	7440-39-3	27.90	1.00	9.96	1.00	84.40	1.00	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	ND	0.20	ND	0.20	0.41	0.20	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	2.73	0.50	1.43	0.50	26.20	0.50	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	3.94	0.50	5.41	0.50	34.50	0.50	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	3.61	0.30	3.81	0.30	114.00	0.30	NA	NA	NA	NA	NA	NA
Mercury	7439-97-6	ND	0.05	ND	0.05	*0.4 (B-1.3)*	0.05	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	ND	0.50	ND	0.50	ND	0.50	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	ND	0.20	ND	0.20	0.23	0.20	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	9.93	1.00	11.20	1.00	117.00	1.00	NA	NA	NA	NA	NA	NA
POLYCHLORINATED BIPHENYLS (PCBs)/PESTICIDES													
Date Analyzed		3/12/2012		3/12/2012		3/12/2012		NA		NA		NA	
Date Extracted		3/12/2012		3/12/2012		3/12/2012		NA		NA		NA	
Analytical Method Number		8082A		8082A		8082A		NA		NA		NA	
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
PCB-1016	12674-11-2	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
PCB-1242	53469-21-9	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
PCB-1221	11104-28-2	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
PCB-1232	11141-16-5	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
PCB-1248	12672-29-6	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
PCB-1254	11097-69-1	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
PCB-1260	11096-82-5	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA

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B - Background (naturally-occuring) concentration

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SOIL VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		SB-103 (03/08/2012) (09-10)		SB-103 (03/08/2012) (12-13)		DUP-1 (03/08/2012) (SB-102)		Field Blank (03/07/2012)		Field Blank (03/08/2012)		Trip Blank (03/07/2012)	
Date Collected		3/8/2012		3/8/2012		3/8/2012		3/7/2012		3/8/2012		3/7/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
SEMI-VOLATILE ORGANICS COMPOUNDS (SVOCs)													
Date Analyzed		3/13/2012		3/13/2012		3/13/2012		NA		NA		NA	
Analytical Method Number		8270C		8270C		8270C		NA		NA		NA	
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Acenaphthene	83-32-9	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Acenaphthylene	208-96-8	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Anthracene	120-12-7	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	56-55-3	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	205-99-2	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	207-08-9	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	191-24-2	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	50-32-8	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	111-91-1	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	111-44-4	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
bis(2-Chloroisoprpyl)ether	108-60-1	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	117-81-7	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	101-55-3	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Butyl benzyl phthalate	85-60-7	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
4-Chloroaniline	106-47-8	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	91-58-7	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	59-50-7	ND	280	ND	280	ND	280	NA	NA	NA	NA	NA	NA
2-Chlorophenol	95-57-8	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	7005-72-3	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Chrysene	218-01-9	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
p,m-Cresol	3/4-Cresol	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
o-Cresol	95-48-7	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Dibenzo(ah)anthracene	53-70-3	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Dibenzofuran	132-64-9	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
di-n-Butyl phthalate	84-74-2	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	541-73-1	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	106-46-7	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	91-94-1	ND	2,000	ND	2,000	ND	2,000	NA	NA	NA	NA	NA	NA

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Flint, Michigan

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Date Collected		3/8/2012		3/8/2012		3/8/2012		3/7/2012		3/8/2012		3/7/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
SEMI-VOLATILE ORGANICS COMPOUNDS (SVOCs) - continued													
Date Analyzed		3/13/2012		3/13/2012		3/13/2012		NA		NA		NA	
Analytical Method Number		8270C		8270C		8270C		NA		NA		NA	
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
2,4-Dichlorophenol	120-83-2	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Diethyl phthalate	84-66-2	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	105-67-9	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	131-11-3	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ND	830	ND	830	ND	830	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	51-28-5	ND	830	ND	830	ND	830	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	121-14-2	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	606-20-2	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	122-66-7	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
di-n-Octyl phthalate	117-84-0	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Fluoranthene	206-44-0	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Fluorene	86-73-7	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	118-74-1	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	87-68-3	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	77-47-4	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Hexachloroethane	67-72-1	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Isophorone	78-59-1	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	91-57-6	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
2-Nitroaniline	88-74-4	ND	830	ND	830	ND	830	NA	NA	NA	NA	NA	NA
3-Nitroaniline	99-09-2	ND	830	ND	830	ND	830	NA	NA	NA	NA	NA	NA
4-Nitroaniline	100-01-6	ND	830	ND	830	ND	830	NA	NA	NA	NA	NA	NA
Nitrobenzene	98-95-3	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
2-Nitrophenol	88-75-5	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
4-Nitrophenol	100-02-7	ND	830	ND	830	ND	830	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	86-30-6	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
N-Nitrsodi-n-propylamine	621-64-7	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA

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Flint, Michigan

Sample Identification		SB-103 (03/08/2012) (09-10)		SB-103 (03/08/2012) (12-13)		DUP-1 (03/08/2012) (SB-102)		Field Blank (03/07/2012)		Field Blank (03/08/2012)		Trip Blank (03/07/2012)	
Date Collected		3/8/2012		3/8/2012		3/8/2012		3/7/2012		3/8/2012		3/7/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
SEMI-VOLATILE ORGANICS COMPOUNDS (SVOCs) - continued													
Date Analyzed		3/13/2012		3/13/2012		3/13/2012		NA		NA		NA	
Analytical Method Number		8270C		8270C		8270C		NA		NA		NA	
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Phenanthrene	85-01-8	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Phenol	108-95-2	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
Pyrene	129-00-0	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	95-95-4	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
2,4,6-Trichorophenol	88-06-2	ND	330	ND	330	ND	330	NA	NA	NA	NA	NA	NA
VOLATILE ORGANICS COMPOUNDS (VOCs)													
Date Analyzed		3/9/2012		3/9/2012		3/9/2012		3/9/2012		3/9/2012		3/9/2012	
Analytical Method Number		8260B/5035		8260B/5035		8260B/5035		8260B/5035		8260B/5035		8260B/5035	
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Diethyl ether	60-29-7	ND	300	ND	300	ND	300	ND	200	ND	200	ND	200
Acetone	67-64-1	ND	1,000	ND	1,000	ND	1,000	ND	1,000	ND	1,000	ND	1,000
Methyl iodide	74-88-4	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
Carbon disulfide	75-15-0	ND	300	ND	400	ND	400	ND	300	ND	300	ND	300
tert-Methyl butyl ether (MTBE)	1634-04-4	ND	300	ND	300	ND	300	ND	200	ND	200	ND	200
Acrylonitrile	107-13-1	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
2-Butanone (MEK)	78-93-3	ND	1,000	ND	1,000	ND	1,000	ND	750	ND	750	ND	750
Dichlorodifluoromethane	75-71-8	ND	300	ND	400	ND	400	ND	300	ND	300	ND	300
Chloromethane	74-87-3	ND	300	ND	400	ND	400	ND	300	ND	300	ND	300
Vinyl chloride	75-01-4	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
Bromomethane	74-83-9	ND	300	ND	300	ND	300	ND	200	ND	200	ND	200
Chloroethane	75-00-3	ND	300	ND	400	ND	400	ND	300	ND	300	ND	300
Terichlorofluoromethane	75-69-4	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
1,1-Dichloroethene	75-35-4	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
Methylene chloride	75-09-2	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
trans-1,2-Dichloroethene	156-60-5	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
1,1-Dichloroethane	75-34-3	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
cis-1,2-Dichloroethene	156-59-2	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
Tetrahydrofuran	109-99-9	ND	1,000	ND	1,000	ND	1,000	ND	1,000	ND	1,000	ND	1,000

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Date Collected		3/8/2012		3/8/2012		3/8/2012		3/7/2012		3/8/2012		3/7/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
VOLATILE ORGANICS COMPOUNDS (VOCs) - continued													
Date Analyzed		3/9/2012		3/9/2012		3/9/2012		3/9/2012		3/9/2012		3/9/2012	
Analytical Method Number		8260B/5035		8260B/5035		8260B/5035		8260B/5035		8260B/5035		8260B/5035	
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Chloroform	67-66-3	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
Bromochloromethane	74-97-5	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
1,1,1-Trichlororthane	71-55-6	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
4-Methyl-2-pentanone (MIBK)	10810-1	ND	3,000	ND	4,000	ND	4,000	ND	3,000	ND	3,000	ND	3,000
2-Hexanone	591-78-6	ND	3,000	ND	4,000	ND	4,000	ND	3,000	ND	3,000	ND	3,000
Carbon tetrachloride	56-23-5	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
Benzene	71-43-2	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
1,2-Dichloroethane	107-06-2	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
Trichloroethene	79-01-6	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
1,2-Dichloropropane	78-87-5	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
Bromodichloromethane	75-27-4	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
Dibromomethane	74-95-3	ND	300	ND	400	ND	400	ND	300	ND	300	ND	300
cis-1,3-Dichloropropane	10061-01-5	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
Toluene	108-88-3	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
trans-1,3-Dichloropropane	10061-02-6	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
1,1,2-Trichloroethane	79-00-5	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
Tetrachloroethene	127-18-4	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
trans-1,4-Dichloro-2-butene	110-57-6	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
Dibromochloromethane	124-48-1	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
1,2-Dibromoethane	106-93-4	ND	30	ND	30	ND	30	ND	20	ND	20	ND	20
Chlorobenzene	108-90-7	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
1,1,1,2-Teterchloroethane	630-20-6	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
Ethylbenzene	100-41-4	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
p,m-Xylene	No CAS #	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
o-Xylene	95-47-6	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
Styrene	100-42-5	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
Isopropylbenzene	98-82-8	ND	300	ND	400	ND	400	ND	300	ND	300	ND	300
Bromoform	75-25-2	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
1,1,2,2-Tetrachloroethane	79-34-5	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50

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Date Collected		3/8/2012		3/8/2012		3/8/2012		3/7/2012		3/8/2012		3/7/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
VOLATILE ORGANICS COMPOUNDS (VOCs) - continued													
Date Analyzed		3/9/2012		3/9/2012		3/9/2012		3/9/2012		3/9/2012		3/9/2012	
Analytical Method Number		8260B/5035		8260B/5035		8260B/5035		8260B/5035		8260B/5035		8260B/5035	
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
1,2,3-Trichloropropane	96-18-4	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
n-Propylbenzene	103-65-1	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
Bromobenzene	108-86-1	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
1,3,5-Trimethylbenzene	108-67-8	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
tert-Butylbenzene	98-06-6	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
1,2,4-Trimethylbenzene	95-63-6	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
sec-Butylbenzene	135-98-8	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
p-Isopropyltoluene	99-87-6	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
1,3-Dichlorobenzene	541-73-1	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
1,4-Dichlorobenzene	106-46-7	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
1,2-Dichlorobenzene	95-50-1	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
1,2,3-Trimethylbenzene	526-73-8	ND	100	ND	100	ND	100	ND	100	ND	100	ND	100
n-Butylbenzene	104-51-8	ND	70	ND	70	ND	70	ND	50	ND	50	ND	50
Hexachloroethane	67-72-1	ND	400	ND	400	ND	400	ND	300	ND	300	ND	300
1,2-Dibromo-3-chloropropane	96-12-8	ND	300	ND	400	ND	400	ND	300	ND	300	ND	300
1,2,4-Trichlorobenzene	120-82-1	ND	450	ND	490	ND	460	ND	330	ND	330	ND	330
1,2,3-Trichlorobenzene	87-61-6	ND	450	ND	490	ND	460	ND	330	ND	330	ND	330
Naphthalene	91-20-3	ND	450	ND	490	ND	460	ND	330	ND	330	ND	330
2-Methylnaphthalene	91-57-6	ND	450	ND	490	ND	460	ND	330	ND	330	ND	330

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

Applied *Eco*Systems, Inc.

Environmental Management, Consulting & Field Services

Soil Analytical Tables

Sampling Event - March 13, 2012

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

SOIL VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		SB-104 (03/13/2012) (07-08)		SB-104 (03/13/2012) (16-17)		DUP-2 (03/13/2012) (SB-104)		Field Blank (03/13/2012)		Trip Blank (03/13/2012)			
Date Collected		3/13/2012		3/13/2012		3/13/2012		3/13/2012		3/13/2012			
Collection Method		Grab		Grab		Grab		Grab		Grab			
INORGANICS													
Date Analyzed		3/14-20/2012		3/14-20/2012		3/14-20/2012		NA		NA			
Analytical Method Number		Mulitple		Mulitple		Mulitple		NA		NA			
CONSTITUENT (mg/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Chromium VI	18540-29-9	ND	1	ND	1	ND	1	NA	NA	NA	NA		
Cyanide	57-12-5	ND	0.15	ND	0.15	ND	0.15	NA	NA	NA	NA		
METALS													
Date Analyzed		3/19/2012		3/19/2012		3/19/2012		NA		NA			
Metal Digestion		3/19/2012		3/19/2012		3/19/2012		NA		NA			
Analytical Method Number		6020, 7471A		6020, 7471A		6020, 7471A		NA		NA			
CONSTITUENT (mg/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Arsenic	7440-38-2	0.66	0.10	2.01	0.10	1.87	0.10	NA	NA	NA	NA		
Barium	7440-39-3	6.64	1.00	31.20	1.00	36.50	1.00	NA	NA	NA	NA		
Cadmium	7440-43-9	ND	0.20	ND	0.20	ND	0.20	NA	NA	NA	NA		
Chromium	7440-47-3	0.70	0.50	5.63	0.50	7.83	0.50	NA	NA	NA	NA		
Copper	7440-50-8	2.07	0.50	9.96	0.50	14.40	0.50	NA	NA	NA	NA		
Lead	7439-92-1	1.73	0.30	6.74	0.30	7.56	0.30	NA	NA	NA	NA		
Mercury	7439-97-6	ND	0.05	ND	0.05	ND	0.05	NA	NA	NA	NA		
Selenium	7782-49-2	ND	0.50	ND	0.50	ND	0.50	NA	NA	NA	NA		
Silver	7440-22-4	ND	0.20	ND	0.20	ND	0.20	NA	NA	NA	NA		
Zinc	7440-66-6	3.21	1.00	26.50	1.00	31.60	1.00	NA	NA	NA	NA		
POLYCHLORINATED BIPHENYLS (PCBs)/PESTICIDES													
Date Analyzed		3/15/2012		3/15/2012		3/15/2012		NA		NA			
Date Extracted		3/15/2012		3/15/2012		3/15/2012		NA		NA			
Analytical Method Number		8082A		8082A		8082A		NA		NA			
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
PCB-1016	12674-11-2	ND	330	ND	330	ND	330	NA	NA	NA	NA		
PCB-1242	53469-21-9	ND	330	ND	330	ND	330	NA	NA	NA	NA		
PCB-1221	11104-28-2	ND	330	ND	330	ND	330	NA	NA	NA	NA		
PCB-1232	11141-16-5	ND	330	ND	330	ND	330	NA	NA	NA	NA		
PCB-1248	12672-29-6	ND	330	ND	330	ND	330	NA	NA	NA	NA		
PCB-1254	11097-69-1	ND	330	ND	330	ND	330	NA	NA	NA	NA		
PCB-1260	11096-82-5	ND	330	ND	330	ND	330	NA	NA	NA	NA		

Notes:
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Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

SOIL VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		SB-104 (03/13/2012) (07-08)		SB-104 (03/13/2012) (16-17)		DUP-2 (03/13/2012) (SB-104)		Field Blank (03/13/2012)		Trip Blank (03/13/2012)			
Date Collected		3/13/2012		3/13/2012		3/13/2012		3/13/2012		3/13/2012			
Collection Method		Grab		Grab		Grab		Grab		Grab			
SEMI-VOLATILE ORGANICS COMPOUNDS (SVOCs)													
Date Analyzed		3/19/2012		3/19/2012		3/19/2012		NA		NA			
Analytical Method Number		8270C		8270C		8270C		NA		NA			
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Acenaphthene	83-32-9	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Acenaphthylene	208-96-8	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Anthracene	120-12-7	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Benzo(a)anthracene	56-55-3	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Benzo(b)fluoranthene	205-99-2	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Benzo(k)fluoranthene	207-08-9	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Benzo(ghi)perylene	191-24-2	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Benzo(a)pyrene	50-32-8	ND	330	ND	330	ND	330	NA	NA	NA	NA		
bis(2-Chloroethoxy)methane	111-91-1	ND	330	ND	330	ND	330	NA	NA	NA	NA		
bis(2-Chloroethyl)ether	111-44-4	ND	330	ND	330	ND	330	NA	NA	NA	NA		
bis(2-Chloroisoprpyl)ether	108-60-1	ND	330	ND	330	ND	330	NA	NA	NA	NA		
bis(2-Ethylhexyl)phthalate	117-81-7	ND	330	ND	330	ND	330	NA	NA	NA	NA		
4-Bromophenyl phenyl ether	101-55-3	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Butyl benzyl phthalate	85-60-7	ND	330	ND	330	ND	330	NA	NA	NA	NA		
4-Chloroaniline	106-47-8	ND	330	ND	330	ND	330	NA	NA	NA	NA		
2-Chloronaphthalene	91-58-7	ND	330	ND	330	ND	330	NA	NA	NA	NA		
4-Chloro-3-methylphenol	59-50-7	ND	280	ND	280	ND	280	NA	NA	NA	NA		
2-Chlorophenol	95-57-8	ND	330	ND	330	ND	330	NA	NA	NA	NA		
4-Chlorophenyl phenyl ether	7005-72-3	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Chrysene	218-01-9	ND	330	ND	330	ND	330	NA	NA	NA	NA		
p,m-Cresol	3/4-Cresol	ND	330	ND	330	ND	330	NA	NA	NA	NA		
o-Cresol	95-48-7	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Dibenzo(ah)anthracene	53-70-3	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Dibenzofuran	132-64-9	ND	330	ND	330	ND	330	NA	NA	NA	NA		
di-n-Butyl phthalate	84-74-2	ND	330	ND	330	ND	330	NA	NA	NA	NA		
1,2-Dichlorobenzene	95-50-1	ND	330	ND	330	ND	330	NA	NA	NA	NA		
1,3-Dichlorobenzene	541-73-1	ND	330	ND	330	ND	330	NA	NA	NA	NA		
1,4-Dichlorobenzene	106-46-7	ND	330	ND	330	ND	330	NA	NA	NA	NA		
3,3-Dichlorobenzidine	91-94-1	ND	2,000	ND	2,000	ND	2,000	NA	NA	NA	NA		

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Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

SOIL VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		SB-104 (03/13/2012) (07-08)		SB-104 (03/13/2012) (16-17)		DUP-2 (03/13/2012) (SB-104)		Field Blank (03/13/2012)		Trip Blank (03/13/2012)			
Date Collected		3/13/2012		3/13/2012		3/13/2012		3/13/2012		3/13/2012			
Collection Method		Grab		Grab		Grab		Grab		Grab			
SEMI-VOLATILE ORGANICS COMPOUNDS (SVOCs) - continued													
Date Analyzed		3/19/2012		3/19/2012		3/19/2012		NA		NA			
Analytical Method Number		8270C		8270C		8270C		NA		NA			
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
2,4-Dichlorophenol	120-83-2	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Diethyl phthalate	84-66-2	ND	330	ND	330	ND	330	NA	NA	NA	NA		
2,4-Dimethylphenol	105-67-9	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Dimethyl phthalate	131-11-3	ND	330	ND	330	ND	330	NA	NA	NA	NA		
4,6-Dinitro-2-methylphenol	534-52-1	ND	830	ND	830	ND	830	NA	NA	NA	NA		
2,4-Dinitrophenol	51-28-5	ND	830	ND	830	ND	830	NA	NA	NA	NA		
2,4-Dinitrotoluene	121-14-2	ND	330	ND	330	ND	330	NA	NA	NA	NA		
2,6-Dinitrotoluene	606-20-2	ND	330	ND	330	ND	330	NA	NA	NA	NA		
1,2-Diphenylhydrazine	122-66-7	ND	330	ND	330	ND	330	NA	NA	NA	NA		
di-n-Octyl phthalate	117-84-0	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Fluoranthene	206-44-0	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Fluorene	86-73-7	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Hexachlorobenzene	118-74-1	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Hexachlorobutadiene	87-68-3	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Hexachlorocyclopentadiene	77-47-4	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Hexachloroethane	67-72-1	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Isophorone	78-59-1	ND	330	ND	330	ND	330	NA	NA	NA	NA		
2-Methylnaphthalene	91-57-6	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Naphthalene	91-20-3	ND	330	ND	330	ND	330	NA	NA	NA	NA		
2-Nitroaniline	88-74-4	ND	830	ND	830	ND	830	NA	NA	NA	NA		
3-Nitroaniline	99-09-2	ND	830	ND	830	ND	830	NA	NA	NA	NA		
4-Nitroaniline	100-01-6	ND	830	ND	830	ND	830	NA	NA	NA	NA		
Nitrobenzene	98-95-3	ND	330	ND	330	ND	330	NA	NA	NA	NA		
2-Nitrophenol	88-75-5	ND	330	ND	330	ND	330	NA	NA	NA	NA		
4-Nitrophenol	100-02-7	ND	830	ND	830	ND	830	NA	NA	NA	NA		
N-Nitrosodiphenylamine	86-30-6	ND	330	ND	330	ND	330	NA	NA	NA	NA		
N-Nitrsodi-n-propylamine	621-64-7	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Pentachlorophenol	87-86-5	ND	330	ND	330	ND	330	NA	NA	NA	NA		

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Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

SOIL VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		SB-104 (03/13/2012) (07-08)		SB-104 (03/13/2012) (16-17)		DUP-2 (03/13/2012) (SB-104)		Field Blank (03/13/2012)		Trip Blank (03/13/2012)			
Date Collected		3/13/2012		3/13/2012		3/13/2012		3/13/2012		3/13/2012			
Collection Method		Grab		Grab		Grab		Grab		Grab			
SEMI-VOLATILE ORGANICS COMPOUNDS (SVOCs) - continued													
Date Analyzed		3/19/2012		3/19/2012		3/19/2012		NA		NA			
Analytical Method Number		8270C		8270C		8270C		NA		NA			
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Phenanthrene	85-01-8	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Phenol	108-95-2	ND	330	ND	330	ND	330	NA	NA	NA	NA		
Pyrene	129-00-0	ND	330	ND	330	ND	330	NA	NA	NA	NA		
1,2,4-Trichlorobenzene	120-82-1	ND	330	ND	330	ND	330	NA	NA	NA	NA		
2,4,5-Trichlorophenol	95-95-4	ND	330	ND	330	ND	330	NA	NA	NA	NA		
2,4,6-Trichorophenol	88-06-2	ND	330	ND	330	ND	330	NA	NA	NA	NA		
VOLATILE ORGANICS COMPOUNDS (VOCs)													
Date Analyzed		3/19/2012		3/19/2012		3/19/2012		3/19/2012		3/19/2012			
Analytical Method Number		8260B/5035		8260B/5035		8260B/5035		8260B/5035		8260B/5035			
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Diethyl ether	60-29-7	ND	200	ND	300	ND	300	ND	200	ND	200		
Acetone	67-64-1	ND	1,000	ND	2,000	ND	2,000	ND	1,000	ND	1,000		
Methyl iodide	74-88-4	ND	100	ND	200	ND	200	ND	100	ND	100		
Carbon disulfide	75-15-0	ND	300	ND	400	ND	400	ND	300	ND	300		
tert-Methyl butyl ether (MTBE)	1634-04-4	ND	200	ND	300	ND	300	ND	200	ND	200		
Acrylonitrile	107-13-1	ND	100	ND	200	ND	200	ND	100	ND	100		
2-Butanone (MEK)	78-93-3	ND	860	ND	1,200	ND	1,300	ND	750	ND	750		
Dichlorodifluoromethane	75-71-8	ND	300	ND	400	ND	400	ND	300	ND	300		
Chloromethane	74-87-3	ND	300	ND	400	ND	400	ND	300	ND	300		
Vinyl chloride	75-01-4	ND	60	ND	80	ND	90	ND	50	ND	50		
Bromomethane	74-83-9	ND	200	ND	300	ND	300	ND	200	ND	200		
Chloroethane	75-00-3	ND	300	ND	400	ND	400	ND	300	ND	300		
Terichlorofluoromethane	75-69-4	ND	100	ND	200	ND	200	ND	100	ND	100		
1,1-Dichloroethene	75-35-4	ND	60	ND	80	ND	90	ND	50	ND	50		
Methylene chloride	75-09-2	ND	100	ND	200	ND	200	ND	100	ND	100		
trans-1,2-Dichloroethene	156-60-5	ND	60	ND	80	ND	90	ND	50	ND	50		
1,1-Dichloroethane	75-34-3	ND	60	ND	80	ND	90	ND	50	ND	50		
cis-1,2-Dichloroethene	156-59-2	ND	60	120	80	130	90	ND	50	ND	50		
Tetrahydrofuran	109-99-9	ND	1,000	ND	2,000	ND	2,000	ND	1,000	ND	1,000		

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Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

SOIL VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		SB-104 (03/13/2012) (07-08)		SB-104 (03/13/2012) (16-17)		DUP-2 (03/13/2012) (SB-104)		Field Blank (03/13/2012)		Trip Blank (03/13/2012)			
Date Collected		3/13/2012		3/13/2012		3/13/2012		3/13/2012		3/13/2012			
Collection Method		Grab		Grab		Grab		Grab		Grab			
VOLATILE ORGANICS COMPOUNDS (VOCs) - continued													
Date Analyzed		3/19/2012		3/19/2012		3/19/2012		3/19/2012		3/19/2012			
Analytical Method Number		8260B/5035		8260B/5035		8260B/5035		8260B/5035		8260B/5035			
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Chloroform	67-66-3	ND	60	ND	80	ND	90	ND	50	ND	50		
Bromochloromethane	74-97-5	ND	100	ND	200	ND	200	ND	100	ND	100		
1,1,1-Trichlorothane	71-55-6	ND	60	ND	80	ND	90	ND	50	ND	50		
4-Methyl-2-pentanone (MIBK)	10810-1	ND	3,000	ND	4,000	ND	4,000	ND	3,000	ND	3,000		
2-Hexanone	591-78-6	ND	3,000	ND	4,000	ND	4,000	ND	3,000	ND	3,000		
Carbon tetrachloride	56-23-5	ND	60	ND	80	ND	90	ND	50	ND	50		
Benzene	71-43-2	ND	60	*210 (D-100)*	80	210	90	ND	50	ND	50		
1,2-Dichloroethane	107-06-2	ND	60	ND	80	ND	90	ND	50	ND	50		
Trichloroethene	79-01-6	ND	60	ND	80	ND	90	ND	50	ND	50		
1,2-Dichloropropane	78-87-5	ND	60	ND	80	ND	90	ND	50	ND	50		
Bromodichloromethane	75-27-4	ND	100	ND	200	ND	200	ND	100	ND	100		
Dibromomethane	74-95-3	ND	300	ND	400	ND	400	ND	300	ND	300		
cis-1,3-Dichloropropane	10061-01-5	ND	60	ND	80	ND	90	ND	50	ND	50		
Toluene	108-88-3	ND	100	ND	200	ND	200	ND	100	ND	100		
trans-1,3-Dichloropropane	10061-02-6	ND	60	ND	80	ND	90	ND	50	ND	50		
1,1,2-Trichloroethane	79-00-5	ND	60	ND	80	ND	90	ND	50	ND	50		
Tetrachloroethene	127-18-4	ND	60	ND	80	ND	90	ND	50	ND	50		
trans-1,4-Dichloro-2-butene	110-57-6	ND	60	ND	80	ND	90	ND	50	ND	50		
Dibromochloromethane	124-48-1	ND	100	ND	200	ND	200	ND	100	ND	100		
1,2-Dibromoethane	106-93-4	ND	20	ND	30	ND	30	ND	20	ND	20		
Chlorobenzene	108-90-7	ND	60	ND	80	ND	90	ND	50	ND	50		
1,1,1,2-Teterchloroethane	630-20-6	ND	100	ND	200	ND	200	ND	100	ND	100		
Ethylbenzene	100-41-4	ND	60	ND	80	ND	90	ND	50	ND	50		
p,m-Xylene	No CAS #	ND	100	ND	200	ND	200	ND	100	ND	100		
o-Xylene	95-47-6	ND	60	ND	80	ND	90	ND	50	ND	50		
Styrene	100-42-5	ND	60	ND	80	ND	90	ND	50	ND	50		
Isopropylbenzene	98-82-8	ND	300	ND	400	ND	400	ND	300	ND	300		
Bromoform	75-25-2	ND	100	ND	200	ND	200	ND	100	ND	100		
1,1,2,2-Tetrachloroethane	79-34-5	ND	60	ND	80	ND	90	ND	50	ND	50		

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

D = Residential Drinking Water Criterion

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

SOIL VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		SB-104 (03/13/2012) (07-08)		SB-104 (03/13/2012) (16-17)		DUP-2 (03/13/2012) (SB-104)		Field Blank (03/13/2012)		Trip Blank (03/13/2012)			
Date Collected		3/13/2012		3/13/2012		3/13/2012		3/13/2012		3/13/2012			
Collection Method		Grab		Grab		Grab		Grab		Grab			
VOLATILE ORGANICS COMPOUNDS (VOCs) - continued													
Date Analyzed		3/19/2012		3/19/2012		3/19/2012		3/19/2012		3/19/2012			
Analytical Method Number		8260B/5035		8260B/5035		8260B/5035		8260B/5035		8260B/5035			
CONSTITUENT (ug/Kg)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
1,2,3-Trichloropropane	96-18-4	ND	100	ND	200	ND	200	ND	100	ND	100		
n-Propylbenzene	103-65-1	ND	100	ND	200	ND	200	ND	100	ND	100		
Bromobenzene	108-86-1	ND	100	ND	200	ND	200	ND	100	ND	100		
1,3,5-Trimethylbenzene	108-67-8	ND	100	ND	200	ND	200	ND	100	ND	100		
tert-Butylbenzene	98-06-6	ND	60	ND	80	ND	90	ND	50	ND	50		
1,2,4-Trimethylbenzene	95-63-6	ND	100	ND	200	ND	200	ND	100	ND	100		
sec-Butylbenzene	135-98-8	ND	60	ND	80	ND	90	ND	50	ND	50		
p-Isopropyltoluene	99-87-6	ND	100	ND	200	ND	200	ND	100	ND	100		
1,3-Dichlorobenzene	541-73-1	ND	100	ND	200	ND	200	ND	100	ND	100		
1,4-Dichlorobenzene	106-46-7	ND	100	ND	200	ND	200	ND	100	ND	100		
1,2-Dichlorobenzene	95-50-1	ND	100	ND	200	ND	200	ND	100	ND	100		
1,2,3-Trimethylbenzene	526-73-8	ND	100	ND	200	ND	200	ND	100	ND	100		
n-Butylbenzene	104-51-8	ND	60	ND	80	ND	90	ND	50	ND	50		
Hexachloroethane	67-72-1	ND	300	ND	500	ND	500	ND	300	ND	300		
1,2-Dibromo-3-chloropropane	96-12-8	ND	300	ND	400	ND	400	ND	300	ND	300		
1,2,4-Trichlorobenzene	120-82-1	ND	380	ND	510	ND	560	ND	330	ND	330		
1,2,3-Trichlorobenzene	87-61-6	ND	380	ND	510	ND	560	ND	330	ND	330		
Naphthalene	91-20-3	ND	380	ND	510	ND	560	ND	330	ND	330		
2-Methylnaphthalene	91-57-6	ND	380	ND	510	ND	560	ND	330	ND	330		

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

Applied *Eco*Systems, Inc.

Environmental Management, Consulting & Field Services

Groundwater Analytical Tables

Sampling Event - March 26, 2012

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

WATER VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		MW-100S (03/07/2012)		MW-101S (03/08/2012)		MW-102S (03/08/2012)		MW-103S (03/13/2012)		DUP (03/26/2012) (MW-103S)		Trip Blank (03/23/2012)	
Sample Depth (feet BGS)		5'-15'		9'-19'		9'-19'		5'-15'		5'-15'		NA	
Date Collected		3/26/2012		3/26/2012		3/26/2012		3/26/2012		3/26/2012		3/26/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
INORGANICS													
Date Analyzed		3/27-4/2/2012		3/27-4/2/2012		3/27-4/2/2012		3/27-4/2/2012		3/27-4/2/2012		NA	
Analytical Method Number		Multiple		Multiple		Multiple		Multiple		Multiple		NA	
CONSTITUENT (mg/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Alkalinity as CaCO3	No CAS #	438.00	2.00	352.00	2.00	420.00	2.00	512.00	2.00	508.00	2.00	NA	NA
Ammonia-N	7664-41-7	ND	0.02	ND	0.02	ND	0.02	0.63	0.02	0.64	0.02	NA	NA
Chloride	16887-006	5.00	5.00	12.00	5.00	25.00	5.00	7.00	5.00	7.00	5.00	NA	NA
Chromium VI	18540-29-9	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	NA	NA
Hardness	No CAS #	290.00	1.00	187.00	1.00	389.00	1.00	502.00	1.00	497.00	1.00	NA	NA
Nitrate-N	14797-55-8	ND	0.50	0.80	0.50	1.70	0.50	ND	0.50	ND	0.50	NA	NA
Nitrite-N	14797-65-0	19.00	0.50	ND	0.50	ND	0.50	ND	0.50	ND	0.50	NA	NA
Sulfate	14808-79-8	4.00	5.00	18.00	5.00	42.00	5.00	9.00	5.00	10.00	5.00	NA	NA
TOC	No CAS #	468.00	1.00	1.20	1.00	1.40	1.00	10.10	1.00	11.20	1.00	NA	NA
Total Dissolved Solids	No CAS #	ND	1.00	316.00	1.00	488.00	1.00	476.00	1.00	500.00	1.00	NA	NA
METALS													
Date Analyzed		3/29/2012		3/29/2012		3/29/2012		3/29/2012		3/29/2012		NA	
Metal Digestion		3/29/2012		3/29/2012		3/29/2012		3/29/2012		3/29/2012		NA	
Analytical Method Number		200.8; 245.1		200.8; 245.1		200.8; 245.1		200.8; 245.1		200.8; 245.1		NA	
CONSTITUENT (mg/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Arsenic	7440-38-2	ND	0.0020	ND	0.0020	0.002	0.0020	*0.048 (D,G-.01)*	0.0020	*0.05 (D,G-.01)*	0.0020	NA	NA
Barium	7440-39-3	0.048	0.0050	0.028	0.0050	0.065	0.0050	0.243	0.0050	0.255	0.0050	NA	NA
Cadmium	7440-43-9	ND	0.0005	ND	0.0005	ND	0.0005	ND	0.0005	ND	0.0005	NA	NA
Chromium	7440-47-3	ND	0.0050	ND	0.0050	0.018	0.0050	0.007	0.0050	0.006	0.0050	NA	NA
Copper	7440-50-8	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	ND	0.0040	NA	NA
Lead	7439-92-1	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	ND	0.0030	NA	NA
Mercury	7439-97-6	ND	0.0002	ND	0.0002	ND	0.0002	ND	0.0002	ND	0.0002	NA	NA
Selenium	7782-49-2	*0.006 (G-.005)*	0.0050	*0.006 (G-.005)*	0.0050	*0.008 (G-.005)*	0.0050	ND	0.0050	*0.006 (G-.005)*	0.0050	NA	NA
Silver	7440-22-4	ND	0.0005	ND	0.0005	ND	0.0005	ND	0.0005	ND	0.0005	NA	NA
Zinc	7440-66-6	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	ND	0.0050	NA	NA
POLYCHLORINATED BIPHENYLS (PCBs)/PESTICIDES													
Date Analyzed		3/28/2012		3/28/2012		3/28/2012		3/29/2012		3/29/2012		NA	
Date Extracted		3/27/2012		3/27/2012		3/27/2012		3/27/2012		3/27/2012		NA	
Analytical Method Number		608		608		608		608		608		NA	
CONSTITUENT (ug/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
PCB-1016	12674-11-2	ND	0.1	ND	0.1	ND	0.1	ND	0.1	ND	0.1	NA	NA
PCB-1242	53469-21-9	ND	0.1	ND	0.1	ND	0.1	ND	0.1	ND	0.1	NA	NA
PCB-1221	11104-28-2	ND	0.1	ND	0.1	ND	0.1	ND	0.1	ND	0.1	NA	NA
PCB-1232	11141-16-5	ND	0.1	ND	0.1	ND	0.1	ND	0.1	ND	0.1	NA	NA
PCB-1248	12672-29-6	ND	0.1	ND	0.1	ND	0.1	ND	0.1	ND	0.1	NA	NA
PCB-1254	11097-69-1	ND	0.1	ND	0.1	ND	0.1	ND	0.1	ND	0.1	NA	NA
PCB-1260	11096-82-5	ND	0.1	ND	0.1	ND	0.1	ND	0.1	ND	0.1	NA	NA
PCB, Total	1336-36-3	ND	0.1	ND	0.1	ND	0.1	ND	0.1	ND	0.1	NA	NA

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

D - Drinking Water Criterion
G - Groundwater to Surface Water Interface Criterion

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

WATER VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		MW-100S (03/07/2012)		MW-101S (03/08/2012)		MW-102S (03/08/2012)		MW-103S (03/13/2012)		DUP (03/26/2012) (MW-103S)		Trip Blank (03/23/2012)	
Sample Depth (feet BGS)		5'-15'		9'-19'		9'-19'		5'-15'		5'-15'		NA	
Date Collected		3/26/2012		3/26/2012		3/26/2012		3/26/2012		3/26/2012		3/26/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
SEMI-VOLATILE ORGANICS COMPOUNDS (SVOCs)													
Date Analyzed		3/29/2012		3/29/2012		3/29/2012		3/29/2012		3/29/2012		NA	
Analytical Method Number		8270C		8270C		8270C		8270C		8270C		NA	
CONSTITUENT (ug/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Acenaphthene	83-32-9	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
Acenaphthylene	208-96-8	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
Anthracene	120-12-7	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
Benzo(a)anthracene	56-55-3	ND	1	ND	1	ND	1	ND	13	ND	1	NA	NA
Benzo(b)fluoranthene	205-99-2	ND	1	ND	1	ND	1	ND	13	ND	1	NA	NA
Benzo(k)fluoranthene	207-08-9	ND	1	ND	1	ND	1	ND	13	ND	1	NA	NA
Benzo(ghi)perylene	191-24-2	ND	1	ND	1	ND	1	ND	13	ND	1	NA	NA
Benzo(a)pyrene	50-32-8	ND	1	ND	1	ND	1	ND	13	ND	1	NA	NA
bis(2-Chloroethoxy)methane	111-91-1	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
bis(2-Chloroethyl)ether	111-44-4	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
bis(2-Chloroisoprpyl)ether	108-60-1	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
bis(2-Ethylhexyl)phthalate	117-81-7	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
4-Bromophenyl phenyl ether	101-55-3	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
Butyl benzyl phthalate	85-60-7	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
4-Chloroaniline	106-47-8	ND	10	ND	10	ND	10	ND	13	ND	10	NA	NA
2-Chloronaphthalene	91-58-7	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
4-Chloro-3-methylphenol	59-50-7	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
2-Chlorophenol	95-57-8	ND	10	ND	10	ND	10	ND	13	ND	10	NA	NA
4-Chlorophenyl phenyl ether	7005-72-3	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
Chrysene	218-01-9	ND	1	ND	1	ND	1	ND	13	ND	1	NA	NA
p,m-Cresol	3/4-Cresol	ND	20	ND	20	ND	20	ND	26	ND	20	NA	NA
o-Cresol	95-48-7	ND	10	ND	10	ND	10	ND	13	ND	10	NA	NA
Dibenzo(ah)anthracene	53-70-3	ND	2	ND	2	ND	2	ND	13	ND	2	NA	NA
Dibenzofuran	132-64-9	ND	4	ND	4	ND	4	ND	13	ND	4	NA	NA
di-n-Butyl phthalate	84-74-2	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
1,2-Dichlorobenzene	95-50-1	ND	1	ND	1	ND	1	ND	13	ND	1	NA	NA
1,3-Dichlorobenzene	541-73-1	ND	1	ND	1	ND	1	ND	13	ND	1	NA	NA
1,4-Dichlorobenzene	106-46-7	ND	1	ND	1	ND	1	ND	13	ND	1	NA	NA
3,3-Dichlorobenzidine	91-94-1	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

WATER VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		MW-100S (03/07/2012)		MW-101S (03/08/2012)		MW-102S (03/08/2012)		MW-103S (03/13/2012)		DUP (03/26/2012) (MW-103S)		Trip Blank (03/23/2012)	
Sample Depth (feet BGS)		5'-15'		9'-19'		9'-19'		5'-15'		5'-15'		NA	
Date Collected		3/26/2012		3/26/2012		3/26/2012		3/26/2012		3/26/2012		3/26/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
SEMI-VOLATILE ORGANICS COMPOUNDS (SVOCs) - continued													
Date Analyzed		3/29/2012		3/29/2012		3/29/2012		3/29/2012		3/29/2012		NA	
Analytical Method Number		8270C		8270C		8270C		8270C		8270C		NA	
CONSTITUENT (ug/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
2,4-Dichlorophenol	120-83-2	ND	10	ND	10	ND	10	ND	13	ND	10	NA	NA
Diethyl phthalate	84-66-2	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
2,4-Dimethylphenol	105-67-9	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
Dimethyl phthalate	131-11-3	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
4,6-Dinitro-2-methylphenol	534-52-1	ND	20	ND	20	ND	20	ND	20	ND	20	NA	NA
2,4-Dinitrophenol	51-28-5	ND	25	ND	25	ND	25	ND	25	ND	25	NA	NA
2,4-Dinitrotoluene	121-14-2	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
2,6-Dinitrotoluene	606-20-2	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
1,2-Diphenylhydrazine	122-66-7	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
di-n-Octyl phthalate	117-84-0	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
Fluoranthene	206-44-0	ND	1	ND	1	ND	1	ND	13	ND	1	NA	NA
Fluorene	86-73-7	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
Hexachlorobenzene	118-74-1	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
Hexachlorobutadiene	87-68-3	ND	10	ND	10	ND	10	ND	13	ND	10	NA	NA
Hexachlorocyclopentadiene	77-47-4	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
Hexachloroethane	67-72-1	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
Indeno(1,2,3-cd)pyrene	193-39-5	ND	2	ND	2	ND	2	ND	13	ND	2	NA	NA
Isophorone	78-59-1	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
2-Methylnaphthalene	91-57-6	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
Naphthalene	91-20-3	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
2-Nitroaniline	88-74-4	ND	25	ND	25	ND	25	ND	25	ND	25	NA	NA
3-Nitroaniline	99-09-2	ND	25	ND	25	ND	25	ND	25	ND	25	NA	NA
4-Nitroaniline	100-01-6	ND	25	ND	25	ND	25	ND	25	ND	25	NA	NA
Nitrobenzene	98-95-3	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
2-Nitrophenol	88-75-5	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
4-Nitrophenol	100-02-7	ND	25	ND	25	ND	25	ND	25	ND	25	NA	NA
N-Nitrosodiphenylamine	86-30-6	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
N-Nitrsodi-n-propylamine	621-64-7	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
Pentachlorophenol	87-86-5	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

WATER VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		MW-100S (03/07/2012)		MW-101S (03/08/2012)		MW-102S (03/08/2012)		MW-103S (03/13/2012)		DUP (03/26/2012) (MW-103S)		Trip Blank (03/23/2012)	
Sample Depth (feet BGS)		5'-15'		9'-19'		9'-19'		5'-15'		5'-15'		NA	
Date Collected		3/26/2012		3/26/2012		3/26/2012		3/26/2012		3/26/2012		3/26/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
SEMI-VOLATILE ORGANICS COMPOUNDS (SVOCs) - continued													
Date Analyzed		3/29/2012		3/29/2012		3/29/2012		3/29/2012		3/29/2012		NA	
Analytical Method Number		8270C		8270C		8270C		8270C		8270C		NA	
CONSTITUENT (ug/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Phenanthrene	85-01-8	ND	2	ND	2	ND	2	*13*	13	ND	2	NA	NA
Phenol	108-95-2	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
Pyrene	129-00-0	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
1,2,4-Trichlorobenzene	120-82-1	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
2,4,5-Trichlorophenol	95-95-4	ND	5	ND	5	ND	5	ND	13	ND	5	NA	NA
2,4,6-Trichorophenol	88-06-2	ND	4	ND	4	ND	4	ND	13	ND	4	NA	NA
VOLATILE ORGANICS COMPOUNDS (VOCs)													
Date Analyzed		3/31/2012		3/31/2012		3/31/2012		3/31/2012		3/31/2012		3/31/2012	
Analytical Method Number		8260B		8260B		8260B		8260B		8260B		8260B	
CONSTITUENT (ug/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Diethyl ether	60-29-7	ND	10	ND	10	ND	10	ND	10	ND	10	ND	10
Acetone	67-64-1	ND	50	ND	50	ND	50	ND	50	ND	50	ND	50
Methyl iodide	74-88-4	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Carbon disulfide	75-15-0	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
tert-Methyl butyl ether (MTBE)	1634-04-4	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
Acrylonitrile	107-13-1	ND	2	ND	2	ND	2	ND	2	ND	2	ND	2
2-Butanone (MEK)	78-93-3	ND	25	ND	25	ND	25	ND	25	ND	25	ND	25
Dichlorodifluoromethane	75-71-8	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
Chloromethane	74-87-3	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
Vinyl chloride	75-01-4	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Bromomethane	74-83-9	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
Chloroethane	75-00-3	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
Terichlorofluoromethane	75-69-4	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1-Dichloroethene	75-35-4	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Methylene chloride	75-09-2	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
trans-1,2-Dichloroethene	156-60-5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1-Dichloroethane	75-34-3	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
cis-1,2-Dichloroethene	156-59-2	3	1	ND	1	ND	1	ND	1	ND	1	ND	1
Tetrahydrofuran	109-99-9	ND	90	ND	90	ND	90	ND	90	ND	90	ND	90

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

WATER VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		MW-100S (03/07/2012)		MW-101S (03/08/2012)		MW-102S (03/08/2012)		MW-103S (03/13/2012)		DUP (03/26/2012) (MW-103S)		Trip Blank (03/23/2012)	
Sample Depth (feet BGS)		5'-15'		9'-19'		9'-19'		5'-15'		5'-15'		NA	
Date Collected		3/26/2012		3/26/2012		3/26/2012		3/26/2012		3/26/2012		3/26/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
VOLATILE ORGANICS COMPOUNDS (VOCs) - continued													
Date Analyzed		3/31/2012		3/31/2012		3/31/2012		3/31/2012		3/31/2012		3/31/2012	
Analytical Method Number		8260B		8260B		8260B		8260B		8260B		8260B	
CONSTITUENT (ug/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Chloroform	67-66-3	1	1	ND	1	ND	1	ND	1	ND	1	ND	1
Bromochloromethane	74-97-5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1,1-Trichlororthane	71-55-6	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
4-Methyl-2-pentanone (MIBK)	10810-1	ND	50	ND	50	ND	50	ND	50	ND	50	ND	50
2-Hexanone	591-78-6	ND	50	ND	50	ND	50	ND	50	ND	50	ND	50
Carbon tetrachloride	56-23-5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Benzene	71-43-2	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2-Dichloroethane	107-06-2	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Trichloroethene	79-01-6	*11 (D-5.0)*	1	*7 (D-5.0)*	1	ND	1	ND	1	ND	1	ND	1
1,2-Dichloropropane	78-87-5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Bromodichloromethane	75-27-4	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Dibromomethane	74-95-3	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
cis-1,3-Dichloropropane	10061-01-5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Toluene	108-88-3	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
trans-1,3-Dichloropropane	10061-02-6	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1,2-Trichloroethane	79-00-5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Tetrachloroethene	127-18-4	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
trans-1,4-Dichloro-2-butene	110-57-6	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Dibromochloromethane	124-48-1	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
1,2-Dibromoethane	106-93-4	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Chlorobenzene	108-90-7	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1,1,2-Teterchloroethane	630-20-6	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Ethylbenzene	100-41-4	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
p,m-Xylene	No CAS #	ND	2	ND	2	ND	2	ND	2	ND	2	ND	2
o-Xylene	95-47-6	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Styrene	100-42-5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Isopropylbenzene	98-82-8	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
Bromoform	75-25-2	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1,2,2-Tetrachloroethane	79-34-5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

D - Drinking Water Criterion

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

WATER VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		MW-100S (03/07/2012)		MW-101S (03/08/2012)		MW-102S (03/08/2012)		MW-103S (03/13/2012)		DUP (03/26/2012) (MW-103S)		Trip Blank (03/23/2012)	
Sample Depth (feet BGS)		5'-15'		9'-19'		9'-19'		5'-15'		5'-15'		NA	
Date Collected		3/26/2012		3/26/2012		3/26/2012		3/26/2012		3/26/2012		3/26/2012	
Collection Method		Grab		Grab		Grab		Grab		Grab		Grab	
VOLATILE ORGANICS COMPOUNDS (VOCs) - continued													
Date Analyzed		3/31/2012		3/31/2012		3/31/2012		3/31/2012		3/31/2012		3/31/2012	
Analytical Method Number		8260B		8260B		8260B		8260B		8260B		8260B	
CONSTITUENT (ug/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
1,2,3-Trichloropropane	96-18-4	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
n-Propylbenzene	103-65-1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Bromobenzene	108-86-1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,3,5-Trimethylbenzene	108-67-8	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
tert-Butylbenzene	98-06-6	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2,4-Trimethylbenzene	95-63-6	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
sec-Butylbenzene	135-98-8	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
p-Isopropyltoluene	99-87-6	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
1,3-Dichlorobenzene	541-73-1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,4-Dichlorobenzene	106-46-7	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2-Dichlorobenzene	95-50-1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2,3-Trimethylbenzene	526-73-8	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
n-Butylbenzene	104-51-8	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Hexachloroethane	67-72-1	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
1,2,4-Trichlorobenzene	120-82-1	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
1,2,3-Trichlorobenzene	87-61-6	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
Naphthalene	91-20-3	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
2-Methylnaphthalene	91-57-6	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

WATER VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		Field Blank (03/26/2012)											
Sample Depth (feet BGS)		NA											
Date Collected		3/26/2012											
Collection Method		Grab											
INORGANICS													
Date Analyzed		NA											
Analytical Method Number		NA											
CONSTITUENT (mg/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Alkalinity as CaCO3	No CAS #	NA	NA										
Ammonia-N	7664-41-7	NA	NA										
Chloride	16887-006	NA	NA										
Chromium VI	18540-29-9	NA	NA										
Hardness	No CAS #	NA	NA										
Nitrate-N	14797-55-8	NA	NA										
Nitrite-N	14797-65-0	NA	NA										
Sulfate	14808-79-8	NA	NA										
TOC	No CAS #	NA	NA										
Total Dissolved Solids	No CAS #	NA	NA										
METALS													
Date Analyzed		NA											
Metal Digestion		NA											
Analytical Method Number		NA											
CONSTITUENT (mg/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Arsenic	7440-38-2	NA	NA										
Barium	7440-39-3	NA	NA										
Cadmium	7440-43-9	NA	NA										
Chromium	7440-47-3	NA	NA										
Copper	7440-50-8	NA	NA										
Lead	7439-92-1	NA	NA										
Mercury	7439-97-6	NA	NA										
Selenium	7782-49-2	NA	NA										
Silver	7440-22-4	NA	NA										
Zinc	7440-66-6	NA	NA										
POLYCHLORINATED BIPHENYLS (PCBs)/PESTICIDES													
Date Analyzed		NA											
Date Extracted		NA											
Analytical Method Number		NA											
CONSTITUENT (ug/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
PCB-1016	12674-11-2	NA	NA										
PCB-1242	53469-21-9	NA	NA										
PCB-1221	11104-28-2	NA	NA										
PCB-1232	11141-16-5	NA	NA										
PCB-1248	12672-29-6	NA	NA										
PCB-1254	11097-69-1	NA	NA										
PCB-1260	11096-82-5	NA	NA										
PCB, Total	1336-36-3	NA	NA										

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

WATER VERIFICATION SAMPLING RESULTS (LABORATORY)	
FACILITY NAME:	Flint West Industrial Land (100-12990-0012)
	Stevenson Street and Glenwood Avenue
	Flint, Michigan

Sample Identification		Field Blank (03/26/2012)											
Sample Depth (feet BGS)		NA											
Date Collected		3/26/2012											
Collection Method		Grab											
SEMI-VOLATILE ORGANICS COMPOUNDS (SVOCs)													
Date Analyzed		NA											
Analytical Method Number		NA											
CONSTITUENT (ug/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Acenaphthene	83-32-9	NA	NA										
Acenaphthylene	208-96-8	NA	NA										
Anthracene	120-12-7	NA	NA										
Benzo(a)anthracene	56-55-3	NA	NA										
Benzo(b)fluoranthene	205-99-2	NA	NA										
Benzo(k)fluoranthene	207-08-9	NA	NA										
Benzo(ghi)perylene	191-24-2	NA	NA										
Benzo(a)pyrene	50-32-8	NA	NA										
bis(2-Chloroethoxy)methane	111-91-1	NA	NA										
bis(2-Chloroethyl)ether	111-44-4	NA	NA										
bis(2-Chloroisoprpyl)ether	108-60-1	NA	NA										
bis(2-Ethylhexyl)phthalate	117-81-7	NA	NA										
4-Bromophenyl phenyl ether	101-55-3	NA	NA										
Butyl benzyl phthalate	85-60-7	NA	NA										
4-Chloroaniline	106-47-8	NA	NA										
2-Chloronaphthalene	91-58-7	NA	NA										
4-Chloro-3-methylphenol	59-50-7	NA	NA										
2-Chlorophenol	95-57-8	NA	NA										
4-Chlorophenyl phenyl ether	7005-72-3	NA	NA										
Chrysene	218-01-9	NA	NA										
p,m-Cresol	3/4-Cresol	NA	NA										
o-Cresol	95-48-7	NA	NA										
Dibenzo(ah)anthracene	53-70-3	NA	NA										
Dibenzofuran	132-64-9	NA	NA										
di-n-Butyl phthalate	84-74-2	NA	NA										
1,2-Dichlorobenzene	95-50-1	NA	NA										
1,3-Dichlorobenzene	541-73-1	NA	NA										
1,4-Dichlorobenzene	106-46-7	NA	NA										
3,3-Dichlorobenzidine	91-94-1	NA	NA										

Notes:
Results in parts per billion
NA = Not Analyzed
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Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

WATER VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		Field Blank (03/26/2012)											
Sample Depth (feet BGS)		NA											
Date Collected		3/26/2012											
Collection Method		Grab											
SEMI-VOLATILE ORGANICS COMPOUNDS (SVOCs) - continued													
Date Analyzed		NA											
Analytical Method Number		NA											
CONSTITUENT (ug/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
2,4-Dichlorophenol	120-83-2	NA	NA										
Diethyl phthalate	84-66-2	NA	NA										
2,4-Dimethylphenol	105-67-9	NA	NA										
Dimethyl phthalate	131-11-3	NA	NA										
4,6-Dinitro-2-methylphenol	534-52-1	NA	NA										
2,4-Dinitrophenol	51-28-5	NA	NA										
2,4-Dinitrotoluene	121-14-2	NA	NA										
2,6-Dinitrotoluene	606-20-2	NA	NA										
1,2-Diphenylhydrazine	122-66-7	NA	NA										
di-n-Octyl phthalate	117-84-0	NA	NA										
Fluoranthene	206-44-0	NA	NA										
Fluorene	86-73-7	NA	NA										
Hexachlorobenzene	118-74-1	NA	NA										
Hexachlorobutadiene	87-68-3	NA	NA										
Hexachlorocyclopentadiene	77-47-4	NA	NA										
Hexachloroethane	67-72-1	NA	NA										
Indeno(1,2,3-cd)pyrene	193-39-5	NA	NA										
Isophorone	78-59-1	NA	NA										
2-Methylnaphthalene	91-57-6	NA	NA										
Naphthalene	91-20-3	NA	NA										
2-Nitroaniline	88-74-4	NA	NA										
3-Nitroaniline	99-09-2	NA	NA										
4-Nitroaniline	100-01-6	NA	NA										
Nitrobenzene	98-95-3	NA	NA										
2-Nitrophenol	88-75-5	NA	NA										
4-Nitrophenol	100-02-7	NA	NA										
N-Nitrosodiphenylamine	86-30-6	NA	NA										
N-Nitrsodi-n-propylamine	621-64-7	NA	NA										
Pentachlorophenol	87-86-5	NA	NA										

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

WATER VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		Field Blank (03/26/2012)											
Sample Depth (feet BGS)		NA											
Date Collected		3/26/2012											
Collection Method		Grab											
SEMI-VOLATILE ORGANICS COMPOUNDS (SVOCs) - continued													
Date Analyzed		NA											
Analytical Method Number		NA											
CONSTITUENT (ug/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Phenanthrene	85-01-8	NA	NA										
Phenol	108-95-2	NA	NA										
Pyrene	129-00-0	NA	NA										
1,2,4-Trichlorobenzene	120-82-1	NA	NA										
2,4,5-Trichlorophenol	95-95-4	NA	NA										
2,4,6-Trichorophenol	88-06-2	NA	NA										
VOLATILE ORGANICS COMPOUNDS (VOCs)													
Date Analyzed		3/31/2012											
Analytical Method Number		8260B											
CONSTITUENT (ug/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Diethyl ether	60-29-7	ND	10										
Acetone	67-64-1	ND	50										
Methyl iodide	74-88-4	ND	1										
Carbon disulfide	75-15-0	ND	5										
tert-Methyl butyl ether (MTBE)	1634-04-4	ND	5										
Acrylonitrile	107-13-1	ND	2										
2-Butanone (MEK)	78-93-3	ND	25										
Dichlorodifluoromethane	75-71-8	ND	5										
Chloromethane	74-87-3	ND	5										
Vinyl chloride	75-01-4	ND	1										
Bromomethane	74-83-9	ND	5										
Chloroethane	75-00-3	ND	5										
Terichlorofluoromethane	75-69-4	ND	1										
1,1-Dichloroethene	75-35-4	ND	1										
Methylene chloride	75-09-2	ND	5										
trans-1,2-Dichloroethene	156-60-5	ND	1										
1,1-Dichloroethane	75-34-3	ND	1										
cis-1,2-Dichloroethene	156-59-2	ND	1										
Tetrahydrofuran	109-99-9	ND	90										

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

WATER VERIFICATION SAMPLING RESULTS (LABORATORY)	
FACILITY NAME:	Flint West Industrial Land (100-12990-0012)
	Stevenson Street and Glenwood Avenue
	Flint, Michigan

Sample Identification		Field Blank (03/26/2012)											
Sample Depth (feet BGS)		NA											
Date Collected		3/26/2012											
Collection Method		Grab											
VOLATILE ORGANICS COMPOUNDS (VOCs) - continued													
Date Analyzed		3/31/2012											
Analytical Method Number		8260B											
CONSTITUENT (ug/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
Chloroform	67-66-3	ND	1										
Bromochloromethane	74-97-5	ND	1										
1,1,1-Trichlororthane	71-55-6	ND	1										
4-Methyl-2-pentanone (MIBK)	10810-1	ND	50										
2-Hexanone	591-78-6	ND	50										
Carbon tetrachloride	56-23-5	ND	1										
Benzene	71-43-2	ND	1										
1,2-Dichloroethane	107-06-2	ND	1										
Trichloroethene	79-01-6	ND	1										
1,2-Dichloropropane	78-87-5	ND	1										
Bromodichloromethane	75-27-4	ND	1										
Dibromomethane	74-95-3	ND	5										
cis-1,3-Dichloropropane	10061-01-5	ND	1										
Toluene	108-88-3	ND	1										
trans-1,3-Dichloropropane	10061-02-6	ND	1										
1,1,2-Trichloroethane	79-00-5	ND	1										
Tetrachloroethene	127-18-4	ND	1										
trans-1,4-Dichloro-2-butene	110-57-6	ND	1										
Dibromochloromethane	124-48-1	ND	5										
1,2-Dibromoethane	106-93-4	ND	1										
Chlorobenzene	108-90-7	ND	1										
1,1,1,2-Teterchloroethane	630-20-6	ND	1										
Ethylbenzene	100-41-4	ND	1										
p,m-Xylene	No CAS #	ND	2										
o-Xylene	95-47-6	ND	1										
Styrene	100-42-5	ND	1										
Isopropylbenzene	98-82-8	ND	5										
Bromoform	75-25-2	ND	1										
1,1,2,2-Tetrachloroethane	79-34-5	ND	1										

Notes:
Results in parts per billion
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ND = Not Detected

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

WATER VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		Field Blank (03/26/2012)											
Sample Depth (feet BGS)		NA											
Date Collected		3/26/2012											
Collection Method		Grab											
VOLATILE ORGANICS COMPOUNDS (VOCs) - continued													
Date Analyzed		3/31/2012											
Analytical Method Number		8260B											
CONSTITUENT (ug/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL
1,2,3-Trichloropropane	96-18-4	ND	1										
n-Propylbenzene	103-65-1	ND	1										
Bromobenzene	108-86-1	ND	1										
1,3,5-Trimethylbenzene	108-67-8	ND	1										
tert-Butylbenzene	98-06-6	ND	1										
1,2,4-Trimethylbenzene	95-63-6	ND	1										
sec-Butylbenzene	135-98-8	ND	1										
p-Isopropyltoluene	99-87-6	ND	5										
1,3-Dichlorobenzene	541-73-1	ND	1										
1,4-Dichlorobenzene	106-46-7	ND	1										
1,2-Dichlorobenzene	95-50-1	ND	1										
1,2,3-Trimethylbenzene	526-73-8	ND	1										
n-Butylbenzene	104-51-8	ND	1										
Hexachloroethane	67-72-1	ND	5										
1,2-Dibromo-3-chloropropane	96-12-8	ND	5										
1,2,4-Trichlorobenzene	120-82-1	ND	5										
1,2,3-Trichlorobenzene	87-61-6	ND	5										
Naphthalene	91-20-3	ND	5										
2-Methylnaphthalene	91-57-6	ND	5										

Notes:
Results in parts per billion
NA = Not Analyzed
ND = Not Detected

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

Groundwater Analytical Tables
Sampling Event - April

Applied EcoSystems, Inc.
Environmental Management, Consulting & Field Services

WATER VERIFICATION SAMPLING RESULTS (LABORATORY)
FACILITY NAME: Flint West Industrial Land (100-12990-0012)
Stevenson Street and Glenwood Avenue
Flint, Michigan

Sample Identification		MW-100S (03/07/2012)		MW-101S (03/08/2012)		MW-102S (03/08/2012)		MW-103S (03/13/2012)		DUP (03/26/2012) (MW-103S)			
Sample Depth (feet BGS)		5'-15'		9'-19'		9'-19'		5'-15'		5'-15'			
Date Collected		4/11/2012		4/11/2012		4/11/2012		4/11/2012		4/11/2012			
Collection Method		Grab		Grab		Grab		Grab		Grab			
INORGANICS													
Date Analyzed		4/20/2012		4/20/2012		4/20/2012		4/20/2012		4/20/2012			
Analytical Method Number		335.4		335.4		335.4		335.4		335.4			
CONSTITUENT (mg/L)	CAS #	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL	Conc	MDL		
Cyanide	57-12-5	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005		

Notes:
Results in parts per billion

NA = Not Analyzed
ND = Not Detected

SOIL ANALYTICAL DATA - METALS
RACER - Flint West #12990

		Sample ID	SB-105	SB-105	SB-105	SB-106	SB-106	SB-106	SB-107	SB-107	SB-107	SB-108	SB-108	SB-108	SB-109	SB-109	SB-109
		Date Collected	12/4/12	12/4/12	12/4/12	12/4/12	12/4/12	12/4/12	12/4/12	12/4/12	12/4/12	12/4/12	12/4/12	12/4/12	12/5/12	12/5/12	12/5/12
		Depth Below Grade (ft)	7-8	10-11	23-25	8-9	13-14	24-25	6-7	13-14	17-18	6-7	14-15	20-21	4-5	12-13	18-19
ANALYTE (ug/kg)	DW	GSI	B	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Arsenic	5,800	5,800	5,800	810	1,220	1,340	950	1,000	1,680	1,630	1,060	1,950	1,070	1,510	1,440	1,510	540	1,770
Barium	1.3 E+6	7.8 E+5 G	75,000	22,400	21,700	30,400	37,400	42,000	26,300	38,200	52,700	25,000	9,010	40,200	55,500	60,600	2,750	20,300
Cadmium	6,000	5,400 G	1,200		140	210		150	250		190	170	110		210	210		170
Chromium	1.0 E+9	4.6 E+9 G	18,000	1,510	2,860	4,740	2,110	3,350	3,920	2,250	5,180	3,260	1,640	2,830	4,610	3,670	470	3,250
Chromium VI	30,000	3,300	NA															
Copper	5.8 E+6	1.2 E+5	32,000	3,810	8,030	14,300	2,670	5,530	11,900	3,390	9,060	10,100	1,480	4,720	9,140	6,370	940	10,500
Lead	7.0 E+5	5.0 E+6 G	21,000	8,500	32,900	8,750	5,160	6,600	8,060	5,550	7,500	7,800	3,170	5,090	8,450	6,710	900	7,390
Mercury	1,700	50	130	20	327	20	30	10	20	20	20	10	10	20	20	10	1	20
Selenium	4,000	400	410															
Silver	4,500	100	1,000		170													
Zinc	2.4 E+6	2.6 E+5G	47,000	6,340	44,000	26,200	6,410	15,000	32,600	9,940	21,700	22,400	4,480	11,500	22,300	18,000	2,110	21,500

		Sample ID	SB-110	SB-110	SB-110	SB-111	SB-111	SB-111	SB-112	SB-112	SB-112	SB-113	SB-113	SB-113	DUP 1	DUP 2	DUP 3
		Date Collected	12/5/12	12/5/12	12/5/12	12/5/12	12/5/12	12/5/12	12/6/12	12/6/12	12/6/12	12/6/12	12/6/12	12/6/12	12/4/12	12/4/12	12/5/12
		Depth Below Grade (ft)	12-13	15-16	24-25	11-12	13-14	24.5-25.5	3.5-4.5	8.5-9.5	24-25	4-6	10-11	23-24			
ANALYTE (ug/kg)	DW	GSI	B	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Arsenic	5,800	5,800	5,800	1,650	1,380	1,660	2130	1,330	2,330	1,240	1,090	1,030	520	580	1,820	1,470	830	1,070
Barium	1.3 E+6	7.8 E+5 G	75,000	30,700	42,400	20,400	47,200	27,100	6,230	22,400	8,320	23,600	21,000	5,960	5,777	25,000	7,320	35,100
Cadmium	6,000	5,400 G	1,200	130	180	200	150	220		120		120				180		140
Chromium	1.0 E+9	4.6 E+9 G	18,000	2,340	3,490	4,320	5,160	3,910	1,120	3,640	730	14,500	1,940	550	970	2,650	1,820	3,630
Chromium VI	30,000	3,300	NA															
Copper	5.8 E+6	1.2 E+5	32,000	3,570	7,200	12,600	6,120	11,100	4,880	5,920	1,700	8,460	6,960	730	3,740	8,880	1,400	6,470
Lead	7.0 E+5	5.0 E+6 G	21,000	4,780	7,110	8,380	6,790	7,410	3,520	3,880	1,940	3,850	5,820	1,080	2,310	6,550	2,050	6,220
Mercury	1,700	50	130	10	20	20	20	20	10	40	10	20	10	2	5	20	10	20
Selenium	4,000	400	410															
Silver	4,500	100	1,000															
Zinc	2.4 E+6	2.6 E+5G	47,000	10,300	17,600	25,800	15,900	2,360	11,000	8,150	3,960	10,400	8,910	2,030	9,360	18,600	3,070	12,900

NOTES:

	Exceeds one or more criteria
GSI	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River
	Blank cells indicate no detectable concentrations
B	MDEQ Default Type A Background
DW	Drinking Water Criteria

SOIL ANALYTICAL DATA - DETECTED VOCs
RACER - Flint West #12990

		Sample ID	SB-105	SB-105	SB-105	SB-106	SB-106	SB-106	SB-107	SB-107	SB-107	SB-108	SB-108	SB-108	SB-109	SB-109	SB-109	SB-110	SB-110
		Date Collected	12/4/12	12/4/12	12/4/12	12/4/12	12/4/12	12/4/12	12/4/12	12/4/12	12/4/12	12/4/12	12/4/12	12/4/12	12/5/12	12/5/12	12/5/12	12/5/12	12/5/12
		Depth (ft)	7-8	10-11	23-25	8-9	13-14	24-25	6-7	13-14	17-18	6-7	14-15	20-21	4-5	12-13	18-19	12-13	15-16
ANALYTE (ug/kg)	DW	GSI	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
VOCs	varies	varies																	

		Sample ID	SB-110	SB-111	SB-111	SB-111	SB-112	SB-112	SB-112	SB-113	SB-113	SB-113	DUP 1	DUP 2	DUP 3	TB	FB	TB	FB	TB	FB
		Date Collected	12/5/12	12/5/12	12/5/12	12/5/12	12/6/12	12/6/12	12/6/12	12/6/12	12/6/12	12/6/12	12/4/12	12/4/12	12/5/12	12/4/12	12/4/12	12/5/12	12/5/12	12/6/12	12/6/12
		Depth (ft)	24-25	11-12	13-14	24.5-25.5	3.5-4.5	8.5-9.5	24-25	4-6	10-11	23-24									
ANALYTE (ug/kg)	DW	GSI	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Acetone	15,000	34,000																		111	
2 Butanone (MEK)	2.6 E+5	44,000																		55	
Chloromethane	5,200	NC																		102	
Vinyl Chloride	40	260					80														
Tetrahydrofuran	1,900	2.2 E+5																		250	
Toluene	16,000	5,400					400														
1,3,5-Trimethylbenzene	1,800	1,100					300														
1,2,3-Trimethylbenzene	NC	NC					200														
Naphthalene	35,000	730					840		470												
2-Methylnaphthalene	57,000	4,200					3,120		1,100	560											
n-Butylbenzene	1,600	NC					250														

NOTES:

	Exceeds one or more criteria
	Blank cells indicate no detectable concentrations
NC	No Criteria
111	Compound also found in associated method blank, suggesting a laboratory artifact.
GSI	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River
DW	Drinking Water criteria

SOIL ANALYTICAL DATA - DETECTED VOCs
RACER - Flint West #12990

	Sample ID		SB-114	SB-114	SB-114	SB-115	SB-115	SB-115	SB-116	SB-116	SB-116	SB-117	SB-117	SB-117	SB-118	SB-118	SB-118
	Date Collected		12/10/12	12/10/12	12/10/12	12/10/12	12/10/12	12/10/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12
	Depth Below Grade (ft)		4-5	7-8	20-21	6-7	13-14	17-18	4-5	7-8	12-13	6-7	9-10	18-19	3.5-4.5	7-8	16-17
ANALYTE (ug/kg)	DW	GSI	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Acetone	15,000	34,000	130	135	152	139	91	121	191	119	161	138	220	119	102	72	
2 Butanone (MEK)	2.6 E+5	44,000	79	123	126	122	89	98	135	86	134	113	113	81	67	59	78
Chloromethane	5,200	NC	144	155	179	174	133	128	176	127	167	145	168	158	127	111	155
Vinyl Chloride	40	260									260						250
1,1-Dichloroethene	140	2,600															110
Methylene Chloride	100	30,000	13	15	16	18	13.3	13	16	10.8	16	14	14	15	11	11.5	12
trans-1,2-Dichloroethene	2,000	30,000									27						200
1,1-Dichloroethane	18,000	15,000									35						80
cis-1,2-Dichloroethene	1,400	12,000			170						2,610			580			11,960
Tetrahydrofuran	1,900	2.2 E+5	350	400	470	440	350	330	460	310	430	390	430	360	330	270	360
Benzene	100	4,000															26
Trichloroethene	100	4,000			1,220						27			5,980			29
Naphthalene	35,000	730	540	60	22									31			
2-Methylnaphthalene	57,000	4,200	234	62	30	24	18							33			

	Sample ID		DUP 4	DUP 5	DUP 6	TB	FB	TB	FB
	Date Collected		12/10/12	12/11/12	12/11/12	12/10/12	12/10/12	12/11/12	12/11/12
	Depth Below Grade (ft)								
ANALYTE (ug/kg)	DW	GSI	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Acetone	15,000	34,000	129	72	80	58		72	66
2 Butanone (MEK)	2.6 E+5	44,000	92	63	60	48	41	42	44
Chloromethane	5,200	NC	110	128	121	99	95	95	103
Methylene Chloride	100	30,000	12	13	12	9.0		9.0	8.5
trans-1,2-Dichloroethene	2,000	30,000							
Tetrahydrofuran	1,900	2.2 E+5	350	290	300	230	230	230	230

NOTES:

	Exceeds one or more criteria
	Blank cells indicate no detectable concentrations
NC	No Criteria
111	Compound also found in associated method blank, suggesting a laboratory artifact.
GSI	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River
DW	Drinking Water criteria

GROUNDWATER ANALYTICAL DATA
RACER - Flint West #12990

	Sample ID		MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105S	MW-106S	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	Dup 1	Dup 2
	Date Collected		12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12
ANALYTE (mg/L)	DW	GSI	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Arsenic	0.01	0.01	DRY		0.0020	0.055			DRY			0.003	0.004	0.013	0.055	0.015
Barium	2	1.2 G	DRY	0.279	0.0840	0.586	0.065	0.054	DRY	0.118	0.101	0.109	0.308	0.077	0.602	0.074
Cadmium	0.005	0.004 G	DRY	0.0018					DRY			0.0008	0.0003	0.0002		
Chromium	0.01	0.16 G	DRY		0.0100				DRY			0.006	0.0040	0.004		0.002
Chromium VI	0.01	0.011	DRY						DRY							
Copper	1	0.02 G	DRY		0.0050			0.002	DRY		0.003	0.028	0.049	0.005		0.003
Lead	0.004	0.028 G	DRY		0.0020				DRY		0.002	0.02	0.016	0.003		0.002
Mercury	0.002	0.0001	DRY	0.0004					DRY			0.000049	0.000037			
Selenium	0.05	0.005	DRY		0.0030		0.003	0.010	DRY							
Silver	0.034	0.0002	DRY						DRY							
Zinc	2.4	0.26 G	DRY	0.021	0.0120	0.002	0.002	0.005	DRY	0.003	0.008	0.047	0.047	0.014	0.002	0.006

	Sample ID		MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105S	MW-106S	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	Dup 1	Dup 2
	Date Collected		12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12
ANALYTE (ug/L)	DW	GSI	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
PNAs	varies	varies	DRY	ND	ND	ND	ND	ND	DRY	ND	ND	ND	ND	ND	ND	ND

	Sample ID		MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105S	MW-106S	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	Dup 1	Dup 2	Trip Blank	Field Blank
	Date Collected		12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12	12/13/12
ANALYTE (ug/L)	DW	GSI	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Acetone	730	1,700		0.072		3.2			DRY				2.71		1.67			
Carbon disulfide	800	NC							DRY				0.58				0.86	5
2 Butanone (MEK)	13,000	2,200							DRY				0.37		0.66			3.1
Chloromethane	260	NC							DRY									0.46
Vinyl Chloride	2.0	13				0.96			DRY	1		28		195	0.80	188		
Chloroethane	430	1,100							DRY					1.26				
1,1-Dichloroethene	7.0	130							DRY	0.18		5		10		0.97		
Methylene Chloride	5.0	1,500							DRY								0.080	0.090
trans-1,2-Dichloroethene	100	1,500							DRY		0.130	1.95		2		2		
1,1-Dichloroethane	880	740							DRY	0.950		4		5		10		
cis-1,2-Dichloroethene	70	620	0.077			0.170	0.340		DRY	6	2	105		69		71		
Tetrahydrofuran	95	11,000	1.04		0.99	0.97	1.06	0.96	DRY	1.00	1.25	8.2		1.12		1.23	31.37	108
Chloroform	80	350	0.140	1			0.500		DRY		6			0.530		0.550		
1,1,1-Trichloroethane	200	89							DRY					0.470		0.460		
Carbontetrachloride	5.0	45						0.15	DRY		3							
Benzene	5.0	200		0.30		0.210			DRY	0.100				0.17	0.21	0.150		
Trichloroethene	5.0	200	4	5	0.68	0.17	0.85	25	DRY	6		166	0.30	115		116		
Toluene	790	270	0.190	0.67	0.120	0.110			DRY					0.100			0.160	0.120
Tetrachloroethene	5.0	60		0.27					DRY					0.140		0.140		
Chlorobenzene	100	25				0.080			DRY									
Total Xylenes	280	41				0.28			DRY									
1,2,4-Trimethylbenzene	63	17					0.14		DRY									
1,2,3-Trimethylbenzene	NC	NC					0.140		DRY						0.130			
Naphthalene	520	11	0.090						DRY									
2-Methylnaphthalene	260	19			0.110		0.250		DRY		0.07			0.040	0.23			

NOTES:

	Exceeds one or more criteria
G	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River
	Blank cells indicate no detectable concentrations
1.00	Compound also found in associated method blank, suggesting a laboratory artifact.
NC	Insufficient data to develop criterion/no criterion

GROUNDWATER ANALYTICAL DATA
RACER - Flint West #12990

	Sample ID		MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105S	MW-106SR	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	Dup 1	Dup 2
	Date Collected		4/25/13	4/25/13	4/25/13	4/25/13	4/25/13	4/25/13	4/30/13	4/25/13	4/26/13	4/26/13	4/26/13	4/26/13	4/26/13	4/26/13
ANALYTE (mg/L)	DW	GSI	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Arsenic	0.01	0.01				0.041		0.003	0.002	0.003		0.004	0.007	0.002	0.003	0.041
Barium	2	1.2 G	0.049	0.034	0.0600	0.246	0.036	0.134	0.113	0.076	0.049	0.086	0.134	0.025	0.026	0.232
Cadmium	0.005	0.004 G	0.0021													
Chromium	0.1	0.16 G			0.0230		0.014	0.022								
Lead	0.004	0.028 G														
Mercury	0.002	0.0001														
Selenium	0.05	0.005						0.007			0.006					
Silver	0.034	0.0002														

	Sample ID		MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105S	MW-106SR	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	Dup 1	Dup 2
	Date Collected		4/25/13	4/25/13	4/25/13	4/25/13	4/25/13	4/25/13	4/30/13	4/25/13	4/26/13	4/26/13	4/26/13	4/26/13	4/26/13	4/26/13
ANALYTE (ug/L)	DW	GSI	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
PNAs	varies	varies														

	Sample ID		MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105S	MW-106SR	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	Dup 1	Dup 2	Trip Blank	Field Blank	Trip Blank	Field Blank
	Date Collected		4/25/13	4/25/13	4/25/13	4/25/13	4/25/13	4/25/13	4/30/13	4/25/13	4/26/13	4/26/13	4/26/13	4/26/13	4/26/13	4/26/13	4/25/13	4/25/13	4/26/13	4/26/13
ANALYTE (ug/L)	DW	GSI	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Acetone	730	1,700														4.4				
Carbon disulfide	800	NC																		
2 Butanone (MEK)	13,000	2,200																		
Chloromethane	260	NC																		
Vinyl Chloride	2.0	13				0.66				0.44		17				0.66				
Chloroethane	430	1,100										0.49								
trichlorofluoromethane	2,600	NA		0.37																
1,1-Dichloroethene	7.0	130										4								
Methylene Chloride	5.0	1,500																		
trans-1,2-Dichloroethene	100	1,500										1								
1,1-Dichloroethane	880	740								1		3								
cis-1,2-Dichloroethene	70	620	0.95							1	0.42	70								
Tetrahydrofuran	95	11,000																		
Chloroform	80	350					4		0.051		2	0.260								
1,1,1-Trichloroethane	200	89										0.590								
Carbontetrachloride	5.0	45									2									
Benzene	5.0	200																		
bromodichloromethane	80.0	NC					0.32													
Trichloroethene	5.0	200	5	1	2					9		178								
Toluene	790	270																		
Tetrachloroethene	5.0	60						1				0.17								
Chlorobenzene	100	25																		
Total Xylenes	280	41																		
1,2,4-Trimethylbenzene	63	17																		
1,2,3-Trimethylbenzene	NC	NC																		
Naphthalene	520	11																		
2-Methylnaphthalene	260	19																		

NOTES:

	Exceeds one or more criteria
G	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River
	Blank cells indicate no detectable concentrations
1.00	Compound also found in associated method blank, suggesting a laboratory artifact.
NC	Insufficient data to develop criterion/no criterion

SOIL ANALYTICAL DATA - DETECTED VOCs
RACER - Flint West #12990

		Sample ID	SB-119	SB-119	SB-120	SB-121	SB-121	SB-122	SB-123	DUP1	FB	TB
		Date Collected	4/30/13	4/30/13	4/30/13	4/30/13	4/30/13	4/30/13	4/30/13	4/30/13	4/30/13	4/30/13
		Depth Below Grade (ft)	10-11	17-18	8-9'	15-16	23-24	15-16	5-6			
ANALYTE (ug/kg)	DW	GSI	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
Acetone	15,000	34,000										
2 Butanone (MEK)	2.6 E+5	44,000										
Chloromethane	5,200	NC										
Vinyl Chloride	40	260					110					
Tetrahydrofuran	1,900	2.2 E+5										
Toluene	16,000	5,400										
1,3,5-Trimethylbenzene	1,800	1,100							29			
1,2,4-Trimethylbenzene	2,100	570	21						37	22		
1,2,3-Trimethylbenzene	NC	NC	12			5.5			42	12		
Naphthalene	35,000	730	64	22					210	55		
2-Methylnaphthalene	57,000	4,200	49	19		25			345	39		
n-Butylbenzene	1,600	NC										
methylene Chloride	100	30,000	13	15	18	14	19	100	18	12	13.5	11.5
1,1 dichloroethene	140	2,600					16					
trans-1,2dichloroethene	2,000	30,000					66					
1,1 dichloroethane	18,000	15,000					57					
cis-1,2dichloroethene	1,400	12,000					2,970	1,600				
benzne	100	4,000					44					
trichloroethene	100	4,000					400	14,400	41			
tetrachloroethylene	100	1,200							18			
o-xylene	5,600*	820*							39			
isopropylbenzene	91,000	3,200							65			
p-isopropyltoluene	NC	NC							93			

NOTES:

	Exceeds one or more criteria
	Blank cells indicate no detectable concentrations
NC	No Criteria
111	Compound also found in associated method blank, suggesting a laboratory artifact.
GSI	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River
DW	Drinking Water criteria
*	Total Xylenes

ATTACHMENT #5: SOIL AND GROUNDWATER ANALYTICAL DATA

Applied *Eco*Systems, Inc.
Environmental Management, Consulting & Field Services

Analytical Laboratory Report

Revised Report

Report ID: S56230.01(02)
Generated on 05/21/2013
Replaces report S56230.01(01) generated on 05/10/2013

Report to

Attention: Mike Smith
Applied Ecosystems
G4300 S. Saginaw St.
Burton, MI 48529

Phone: 810-715-2525 FAX: 810-715-2526
Email: msmith@appliedecosystems.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
Tabitha Faust (tfaust@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S56230.01-S56230.17
Project: 12990-11-01/ Former Building 9
Collected Date: 04/25/2013 - 04/26/2013
Submitted Date/Time: 04/29/2013 08:00
Sampled by: Josh Adams
P.O. #: 11-4317-102

MDL's added

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc..

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified.Full certification lists are available upon request.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Sample Summary (17 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S56230.01	MW-100S	Groundwater	04/25/2013 14:55
S56230.02	MW-101S	Groundwater	04/25/2013 14:29
S56230.03	MW-102S	Groundwater	04/25/2013 13:41
S56230.04	MW-103S	Groundwater	04/25/2013 14:25
S56230.05	MW-104S	Groundwater	04/25/2013 12:10
S56230.06	MW-105S	Groundwater	04/25/2013 12:54
S56230.07	MW-107S	Groundwater	04/25/2013 16:03
S56230.08	MW-108S	Groundwater	04/26/2013 11:40
S56230.09	MW-109S	Groundwater	04/26/2013 12:25
S56230.10	MW-110S	Groundwater	04/26/2013 13:20
S56230.11	MW-111S	Groundwater	04/26/2013 14:10
S56230.12	DUP-1	Groundwater	04/26/2013 00:01
S56230.13	DUP-2	Groundwater	04/26/2013 00:01
S56230.14	Trip Blank (4/25)	Groundwater	04/25/2013 00:01
S56230.15	Field Blank (4/25)	Groundwater	04/25/2013 00:01
S56230.16	Trip Blank (4/26)	Groundwater	04/26/2013 00:01
S56230.17	Field Blank (4/26)	Groundwater	04/26/2013 00:01

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56230.01
Sample Tag: MW-100S
Collected Date/Time: 04/25/2013 14:55
Matrix: Groundwater
COC Reference: 81592

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.7	IR
2	1L Amber	None	Yes	2.7	IR
1	125ml Plastic	HNO3	Yes	2.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	04/29/13 11:00	CCM		
Metal Digestion	Completed			3015A	05/10/13 10:00	PER		
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
PNA Extraction	Completed			3510C	04/30/13 22:38	EMR		
Metals								
Arsenic	Not detected	mg/L	0.002	E200.8	05/10/13 14:17	PER	0.000052	
Barium	0.049	mg/L	0.005	E200.8	05/10/13 14:17	PER	0.00022	
Cadmium	0.0021	mg/L	0.0005	E200.8	05/10/13 14:17	PER	0.000067	
Chromium	Not detected	mg/L	0.005	E200.8	05/10/13 14:17	PER	0.00013	
Lead	Not detected	mg/L	0.003	E200.8	05/10/13 14:17	PER	0.000043	
Mercury	Not detected	mg/L	0.0002	E245.1	04/29/13 15:06	CCM	0.000030	
Selenium	Not detected	mg/L	0.005	E200.8	05/10/13 14:17	PER	0.00027	
Silver	Not detected	mg/L	0.0005	E200.8	05/10/13 14:17	PER	0.000018	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	05/01/13 14:31	PL	0.32	
Acenaphthylene	Not detected	ug/L	5	SW8270C	05/01/13 14:31	PL	0.29	
Anthracene	Not detected	ug/L	5	SW8270C	05/01/13 14:31	PL	0.30	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	05/01/13 14:31	PL	0.28	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	05/01/13 14:31	PL	0.27	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 14:31	PL	0.30	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 14:31	PL	0.30	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	05/01/13 14:31	PL	0.28	
Chrysene	Not detected	ug/L	1	SW8270C	05/01/13 14:31	PL	0.30	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	05/01/13 14:31	PL	0.32	
Fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 14:31	PL	0.32	
Fluorene	Not detected	ug/L	5	SW8270C	05/01/13 14:31	PL	0.31	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	05/01/13 14:31	PL	0.27	
Naphthalene	Not detected	ug/L	5	SW8270C	05/01/13 14:31	PL	0.27	
Phenanthrene	Not detected	ug/L	2	SW8270C	05/01/13 14:31	PL	0.30	
Pyrene	Not detected	ug/L	5	SW8270C	05/01/13 14:31	PL	0.29	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 14:31	PL	0.28	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 14:31	PL	0.31	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 15:26	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 15:26	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.24	

Lab Sample ID: S56230.01 (continued)
Sample Tag: MW-100S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 15:26	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 15:26	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 15:26	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 15:26	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 15:26	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 15:26	JGH	0.20	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 15:26	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 15:26	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 15:26	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.15	
cis-1,2-Dichloroethene	0.95	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.21	J
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 15:26	JGH	1.2	
Chloroform	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 15:26	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 15:26	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.17	
Trichloroethene	5	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 15:26	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 15:26	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 15:26	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 15:26	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.15	

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S56230.01 (continued)
Sample Tag: MW-100S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 15:26	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:26	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 15:26	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 15:26	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 15:26	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 15:26	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 15:26	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 15:26	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56230.02
Sample Tag: MW-101S
Collected Date/Time: 04/25/2013 14:29
Matrix: Groundwater
COC Reference: 81592

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.7	IR
2	1L Amber	None	Yes	2.7	IR
1	125ml Plastic	HNO3	Yes	2.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	04/29/13 11:00	CCM		
Metal Digestion	Completed			3015A	05/10/13 10:00	PER		
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
PNA Extraction	Completed			3510C	04/30/13 22:38	EMR		
PNA Extraction (Replicate 01)	Completed			3510C	05/02/13 20:59	EMR		
Metals								
Arsenic	Not detected	mg/L	0.002	E200.8	05/10/13 14:18	PER	0.000052	
Barium	0.034	mg/L	0.005	E200.8	05/10/13 14:18	PER	0.00022	
Cadmium	Not detected	mg/L	0.0005	E200.8	05/10/13 14:18	PER	0.000067	
Chromium	Not detected	mg/L	0.005	E200.8	05/10/13 14:18	PER	0.00013	
Lead	Not detected	mg/L	0.003	E200.8	05/10/13 14:18	PER	0.000043	
Mercury	Not detected	mg/L	0.0002	E245.1	04/29/13 14:48	CCM	0.000030	
Selenium	Not detected	mg/L	0.005	E200.8	05/10/13 14:18	PER	0.00027	
Silver	Not detected	mg/L	0.0005	E200.8	05/10/13 14:18	PER	0.000018	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	05/01/13 14:53	PL	0.32	
Acenaphthylene	Not detected	ug/L	5	SW8270C	05/01/13 14:53	PL	0.28	
Anthracene	Not detected	ug/L	5	SW8270C	05/01/13 14:53	PL	0.30	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	05/01/13 14:53	PL	0.28	S
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	05/01/13 14:53	PL	0.27	S
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 14:53	PL	0.30	S
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 14:53	PL	0.29	S
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	05/01/13 14:53	PL	0.27	S
Chrysene	Not detected	ug/L	1	SW8270C	05/01/13 14:53	PL	0.30	S
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	05/01/13 14:53	PL	0.31	S
Fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 14:53	PL	0.32	
Fluorene	Not detected	ug/L	5	SW8270C	05/01/13 14:53	PL	0.30	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	05/01/13 14:53	PL	0.27	S
Naphthalene	Not detected	ug/L	5	SW8270C	05/01/13 14:53	PL	0.27	
Phenanthrene	Not detected	ug/L	2	SW8270C	05/01/13 14:53	PL	0.29	
Pyrene	Not detected	ug/L	5	SW8270C	05/01/13 14:53	PL	0.29	S
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 14:53	PL	0.28	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 14:53	PL	0.30	
Polynuclear Aromatic Hydrocarbon (Replicate 01)								
Acenaphthene	Not detected	ug/L	5	SW8270C	05/03/13 20:19	PL	0.32	
Acenaphthylene	Not detected	ug/L	5	SW8270C	05/03/13 20:19	PL	0.28	

S-Surrogate recovery outside of control limits

Lab Sample ID: S56230.02 (continued)
Sample Tag: MW-101S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatic Hydrocarbon (Replicate 01) (continued)								
Anthracene	Not detected	ug/L	5	SW8270C	05/03/13 20:19	PL	0.30	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	05/03/13 20:19	PL	0.28	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	05/03/13 20:19	PL	0.27	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	05/03/13 20:19	PL	0.30	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	05/03/13 20:19	PL	0.29	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	05/03/13 20:19	PL	0.27	
Chrysene	Not detected	ug/L	1	SW8270C	05/03/13 20:19	PL	0.30	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	05/03/13 20:19	PL	0.31	
Fluoranthene	Not detected	ug/L	1	SW8270C	05/03/13 20:19	PL	0.32	
Fluorene	Not detected	ug/L	5	SW8270C	05/03/13 20:19	PL	0.30	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	05/03/13 20:19	PL	0.27	
Naphthalene	Not detected	ug/L	5	SW8270C	05/03/13 20:19	PL	0.27	
Phenanthrene	Not detected	ug/L	2	SW8270C	05/03/13 20:19	PL	0.29	
Pyrene	Not detected	ug/L	5	SW8270C	05/03/13 20:19	PL	0.29	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/03/13 20:19	PL	0.28	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/03/13 20:19	PL	0.30	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 15:46	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 15:46	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.24	
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 15:46	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 15:46	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 15:46	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 15:46	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 15:46	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 15:46	JGH	0.20	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 15:46	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 15:46	JGH	0.21	
Trichlorofluoromethane	0.37	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.28	J
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 15:46	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.15	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 15:46	JGH	1.2	
Chloroform	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 15:46	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 15:46	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.17	
Trichloroethene	1	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.18	

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S56230.02 (continued)
Sample Tag: MW-101S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 15:46	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 15:46	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 15:46	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 15:46	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 15:46	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 15:46	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 15:46	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 15:46	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 15:46	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 15:46	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 15:46	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 15:46	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56230.03
Sample Tag: MW-102S
Collected Date/Time: 04/25/2013 13:41
Matrix: Groundwater
COC Reference: 81592

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.7	IR
2	1L Amber	None	Yes	2.7	IR
1	125ml Plastic	HNO3	Yes	2.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	04/29/13 11:00	CCM		
Metal Digestion	Completed			3015A	05/10/13 10:00	PER		
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
PNA Extraction	Completed			3510C	04/30/13 22:38	EMR		
Metals								
Arsenic	Not detected	mg/L	0.002	E200.8	05/10/13 14:20	PER	0.000052	
Barium	0.060	mg/L	0.005	E200.8	05/10/13 14:20	PER	0.00022	
Cadmium	Not detected	mg/L	0.0005	E200.8	05/10/13 14:20	PER	0.000067	
Chromium	0.023	mg/L	0.005	E200.8	05/10/13 14:20	PER	0.00013	
Lead	Not detected	mg/L	0.003	E200.8	05/10/13 14:20	PER	0.000043	
Mercury	Not detected	mg/L	0.0002	E245.1	04/29/13 14:50	CCM	0.000030	
Selenium	Not detected	mg/L	0.005	E200.8	05/10/13 14:20	PER	0.00027	
Silver	Not detected	mg/L	0.0005	E200.8	05/10/13 14:20	PER	0.000018	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	05/01/13 15:16	PL	0.32	
Acenaphthylene	Not detected	ug/L	5	SW8270C	05/01/13 15:16	PL	0.29	
Anthracene	Not detected	ug/L	5	SW8270C	05/01/13 15:16	PL	0.30	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	05/01/13 15:16	PL	0.28	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	05/01/13 15:16	PL	0.27	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 15:16	PL	0.30	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 15:16	PL	0.30	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	05/01/13 15:16	PL	0.28	
Chrysene	Not detected	ug/L	1	SW8270C	05/01/13 15:16	PL	0.30	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	05/01/13 15:16	PL	0.32	
Fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 15:16	PL	0.32	
Fluorene	Not detected	ug/L	5	SW8270C	05/01/13 15:16	PL	0.31	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	05/01/13 15:16	PL	0.27	
Naphthalene	Not detected	ug/L	5	SW8270C	05/01/13 15:16	PL	0.27	
Phenanthrene	Not detected	ug/L	2	SW8270C	05/01/13 15:16	PL	0.30	
Pyrene	Not detected	ug/L	5	SW8270C	05/01/13 15:16	PL	0.29	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 15:16	PL	0.28	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 15:16	PL	0.31	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 16:07	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 16:07	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.24	

Lab Sample ID: S56230.03 (continued)
Sample Tag: MW-102S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 16:07	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 16:07	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 16:07	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 16:07	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 16:07	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 16:07	JGH	0.20	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 16:07	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 16:07	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 16:07	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.15	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 16:07	JGH	1.2	
Chloroform	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 16:07	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 16:07	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.17	
Trichloroethene	2	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 16:07	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 16:07	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 16:07	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 16:07	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.18	

Lab Sample ID: S56230.03 (continued)
Sample Tag: MW-102S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 16:07	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:07	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 16:07	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 16:07	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 16:07	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 16:07	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 16:07	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 16:07	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56230.04
Sample Tag: MW-103S
Collected Date/Time: 04/25/2013 14:25
Matrix: Groundwater
COC Reference: 81592

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.7	IR
2	1L Amber	None	Yes	2.7	IR
1	125ml Plastic	HNO3	Yes	2.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	04/29/13 11:00	CCM		
Metal Digestion	Completed			3015A	05/10/13 10:00	PER		
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
PNA Extraction	Completed			3510C	04/30/13 22:38	EMR		
Metals								
Arsenic	0.041	mg/L	0.002	E200.8	05/10/13 14:22	PER	0.000052	
Barium	0.246	mg/L	0.005	E200.8	05/10/13 14:22	PER	0.00022	
Cadmium	Not detected	mg/L	0.0005	E200.8	05/10/13 14:22	PER	0.000067	
Chromium	Not detected	mg/L	0.005	E200.8	05/10/13 14:22	PER	0.00013	
Lead	Not detected	mg/L	0.003	E200.8	05/10/13 14:22	PER	0.000043	
Mercury	Not detected	mg/L	0.0002	E245.1	04/29/13 14:52	CCM	0.000030	
Selenium	Not detected	mg/L	0.005	E200.8	05/10/13 14:22	PER	0.00027	
Silver	Not detected	mg/L	0.0005	E200.8	05/10/13 14:22	PER	0.000018	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	05/01/13 15:38	PL	0.32	
Acenaphthylene	Not detected	ug/L	5	SW8270C	05/01/13 15:38	PL	0.29	
Anthracene	Not detected	ug/L	5	SW8270C	05/01/13 15:38	PL	0.30	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	05/01/13 15:38	PL	0.28	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	05/01/13 15:38	PL	0.27	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 15:38	PL	0.31	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 15:38	PL	0.30	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	05/01/13 15:38	PL	0.28	
Chrysene	Not detected	ug/L	1	SW8270C	05/01/13 15:38	PL	0.30	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	05/01/13 15:38	PL	0.32	
Fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 15:38	PL	0.32	
Fluorene	Not detected	ug/L	5	SW8270C	05/01/13 15:38	PL	0.31	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	05/01/13 15:38	PL	0.28	
Naphthalene	Not detected	ug/L	5	SW8270C	05/01/13 15:38	PL	0.27	
Phenanthrene	Not detected	ug/L	2	SW8270C	05/01/13 15:38	PL	0.30	
Pyrene	Not detected	ug/L	5	SW8270C	05/01/13 15:38	PL	0.30	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 15:38	PL	0.29	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 15:38	PL	0.31	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 16:27	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 16:27	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.24	

Lab Sample ID: S56230.04 (continued)
Sample Tag: MW-103S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 16:27	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 16:27	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 16:27	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 16:27	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 16:27	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 16:27	JGH	0.20	
Vinyl chloride	0.66	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.24	J
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 16:27	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 16:27	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 16:27	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.15	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 16:27	JGH	1.2	
Chloroform	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 16:27	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 16:27	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 16:27	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 16:27	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 16:27	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 16:27	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.15	

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S56230.04 (continued)
Sample Tag: MW-103S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 16:27	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:27	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 16:27	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 16:27	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 16:27	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 16:27	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 16:27	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 16:27	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56230.05
Sample Tag: MW-104S
Collected Date/Time: 04/25/2013 12:10
Matrix: Groundwater
COC Reference: 81592

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.7	IR
2	1L Amber	None	Yes	2.7	IR
1	125ml Plastic	HNO3	Yes	2.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	04/29/13 11:00	CCM		
Metal Digestion	Completed			3015A	05/10/13 10:00	PER		
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
PNA Extraction	Completed			3510C	04/30/13 22:38	EMR		
Metals								
Arsenic	Not detected	mg/L	0.002	E200.8	05/10/13 14:26	PER	0.000052	
Barium	0.036	mg/L	0.005	E200.8	05/10/13 14:26	PER	0.00022	
Cadmium	Not detected	mg/L	0.0005	E200.8	05/10/13 14:26	PER	0.000067	
Chromium	0.014	mg/L	0.005	E200.8	05/10/13 14:26	PER	0.00013	
Lead	Not detected	mg/L	0.003	E200.8	05/10/13 14:26	PER	0.000043	
Mercury	Not detected	mg/L	0.0002	E245.1	04/29/13 14:54	CCM	0.000030	
Selenium	Not detected	mg/L	0.005	E200.8	05/10/13 14:26	PER	0.00027	
Silver	Not detected	mg/L	0.0005	E200.8	05/10/13 14:26	PER	0.000018	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	05/01/13 16:01	PL	0.32	
Acenaphthylene	Not detected	ug/L	5	SW8270C	05/01/13 16:01	PL	0.29	
Anthracene	Not detected	ug/L	5	SW8270C	05/01/13 16:01	PL	0.30	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	05/01/13 16:01	PL	0.28	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	05/01/13 16:01	PL	0.27	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 16:01	PL	0.31	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 16:01	PL	0.30	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	05/01/13 16:01	PL	0.28	
Chrysene	Not detected	ug/L	1	SW8270C	05/01/13 16:01	PL	0.30	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	05/01/13 16:01	PL	0.32	
Fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 16:01	PL	0.32	
Fluorene	Not detected	ug/L	5	SW8270C	05/01/13 16:01	PL	0.31	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	05/01/13 16:01	PL	0.28	
Naphthalene	Not detected	ug/L	5	SW8270C	05/01/13 16:01	PL	0.27	
Phenanthrene	Not detected	ug/L	2	SW8270C	05/01/13 16:01	PL	0.30	
Pyrene	Not detected	ug/L	5	SW8270C	05/01/13 16:01	PL	0.30	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 16:01	PL	0.29	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 16:01	PL	0.31	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 16:47	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 16:47	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.24	

Lab Sample ID: S56230.05 (continued)
Sample Tag: MW-104S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 16:47	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 16:47	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 16:47	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 16:47	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 16:47	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 16:47	JGH	0.20	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 16:47	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 16:47	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 16:47	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.15	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 16:47	JGH	1.2	
Chloroform	4	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 16:47	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 16:47	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.18	
Bromodichloromethane	0.32	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.19	J
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 16:47	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 16:47	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 16:47	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 16:47	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.15	

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S56230.05 (continued)
Sample Tag: MW-104S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 16:47	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 16:47	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 16:47	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 16:47	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 16:47	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 16:47	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 16:47	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 16:47	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56230.06
Sample Tag: MW-105S
Collected Date/Time: 04/25/2013 12:54
Matrix: Groundwater
COC Reference: 81592

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.7	IR
2	1L Amber	None	Yes	2.7	IR
1	125ml Plastic	HNO3	Yes	2.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	04/29/13 11:00	CCM		
Metal Digestion	Completed			3015A	05/10/13 10:00	PER		
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
PNA Extraction	Completed			3510C	04/30/13 22:38	EMR		
Metals								
Arsenic	0.003	mg/L	0.002	E200.8	05/10/13 15:51	PER	0.000052	
Barium	0.134	mg/L	0.005	E200.8	05/10/13 15:51	PER	0.00022	
Cadmium	Not detected	mg/L	0.0005	E200.8	05/10/13 15:51	PER	0.000067	
Chromium	0.022	mg/L	0.005	E200.8	05/10/13 15:51	PER	0.00013	
Lead	Not detected	mg/L	0.003	E200.8	05/10/13 15:51	PER	0.000043	
Mercury	Not detected	mg/L	0.0002	E245.1	04/29/13 14:56	CCM	0.000030	
Selenium	0.007	mg/L	0.005	E200.8	05/10/13 15:51	PER	0.00027	
Silver	0.0006	mg/L	0.0005	E200.8	05/10/13 15:51	PER	0.000018	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	05/01/13 16:23	PL	0.33	
Acenaphthylene	Not detected	ug/L	5	SW8270C	05/01/13 16:23	PL	0.29	
Anthracene	Not detected	ug/L	5	SW8270C	05/01/13 16:23	PL	0.31	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	05/01/13 16:23	PL	0.28	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	05/01/13 16:23	PL	0.27	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 16:23	PL	0.31	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 16:23	PL	0.30	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	05/01/13 16:23	PL	0.28	
Chrysene	Not detected	ug/L	1	SW8270C	05/01/13 16:23	PL	0.31	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	05/01/13 16:23	PL	0.32	
Fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 16:23	PL	0.33	
Fluorene	Not detected	ug/L	5	SW8270C	05/01/13 16:23	PL	0.31	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	05/01/13 16:23	PL	0.28	
Naphthalene	Not detected	ug/L	5	SW8270C	05/01/13 16:23	PL	0.27	
Phenanthrene	Not detected	ug/L	2	SW8270C	05/01/13 16:23	PL	0.30	
Pyrene	Not detected	ug/L	5	SW8270C	05/01/13 16:23	PL	0.30	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 16:23	PL	0.29	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 16:23	PL	0.31	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 17:08	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 17:08	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.24	

Lab Sample ID: S56230.06 (continued)
Sample Tag: MW-105S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 17:08	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 17:08	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 17:08	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 17:08	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 17:08	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 17:08	JGH	0.20	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 17:08	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 17:08	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 17:08	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.15	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 17:08	JGH	1.2	
Chloroform	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 17:08	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 17:08	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 17:08	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.34	
Tetrachloroethene	1	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 17:08	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 17:08	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 17:08	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.18	

Lab Sample ID: S56230.06 (continued)
Sample Tag: MW-105S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 17:08	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:08	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 17:08	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 17:08	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 17:08	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 17:08	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 17:08	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 17:08	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56230.07
Sample Tag: MW-107S
Collected Date/Time: 04/25/2013 16:03
Matrix: Groundwater
COC Reference: 81592

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.7	IR
2	1L Amber	None	Yes	2.7	IR
1	125ml Plastic	HNO3	Yes	2.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	04/29/13 11:00	CCM		
Metal Digestion	Completed			3015A	05/10/13 10:00	PER		
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
PNA Extraction	Completed			3510C	04/30/13 22:38	EMR		
Metals								
Arsenic	0.003	mg/L	0.002	E200.8	05/10/13 15:53	PER	0.000052	
Barium	0.076	mg/L	0.005	E200.8	05/10/13 15:53	PER	0.00022	
Cadmium	Not detected	mg/L	0.0005	E200.8	05/10/13 15:53	PER	0.000067	
Chromium	Not detected	mg/L	0.005	E200.8	05/10/13 15:53	PER	0.00013	
Lead	Not detected	mg/L	0.003	E200.8	05/10/13 15:53	PER	0.000043	
Mercury	Not detected	mg/L	0.0002	E245.1	04/29/13 14:58	CCM	0.000030	
Selenium	Not detected	mg/L	0.005	E200.8	05/10/13 15:53	PER	0.00027	
Silver	Not detected	mg/L	0.0005	E200.8	05/10/13 15:53	PER	0.000018	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	05/01/13 16:46	PL	0.32	
Acenaphthylene	Not detected	ug/L	5	SW8270C	05/01/13 16:46	PL	0.28	
Anthracene	Not detected	ug/L	5	SW8270C	05/01/13 16:46	PL	0.30	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	05/01/13 16:46	PL	0.28	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	05/01/13 16:46	PL	0.27	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 16:46	PL	0.30	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 16:46	PL	0.29	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	05/01/13 16:46	PL	0.27	
Chrysene	Not detected	ug/L	1	SW8270C	05/01/13 16:46	PL	0.30	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	05/01/13 16:46	PL	0.31	
Fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 16:46	PL	0.32	
Fluorene	Not detected	ug/L	5	SW8270C	05/01/13 16:46	PL	0.30	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	05/01/13 16:46	PL	0.27	
Naphthalene	Not detected	ug/L	5	SW8270C	05/01/13 16:46	PL	0.27	
Phenanthrene	Not detected	ug/L	2	SW8270C	05/01/13 16:46	PL	0.29	
Pyrene	Not detected	ug/L	5	SW8270C	05/01/13 16:46	PL	0.29	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 16:46	PL	0.28	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 16:46	PL	0.30	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 17:28	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 17:28	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.24	

Lab Sample ID: S56230.07 (continued)
Sample Tag: MW-107S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 17:28	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 17:28	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 17:28	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 17:28	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 17:28	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 17:28	JGH	0.20	
Vinyl chloride	0.44	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.24	J
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 17:28	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 17:28	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 17:28	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.14	
1,1-Dichloroethane	1	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.15	
cis-1,2-Dichloroethene	1	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 17:28	JGH	1.2	
Chloroform	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 17:28	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 17:28	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.17	
Trichloroethene	9	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 17:28	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 17:28	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 17:28	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 17:28	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.15	

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S56230.07 (continued)
Sample Tag: MW-107S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 17:28	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:28	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 17:28	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 17:28	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 17:28	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 17:28	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 17:28	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 17:28	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56230.08
Sample Tag: MW-108S
Collected Date/Time: 04/26/2013 11:40
Matrix: Groundwater
COC Reference: 81592

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.7	IR
2	1L Amber	None	Yes	2.7	IR
1	125ml Plastic	HNO3	Yes	2.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	04/29/13 11:00	CCM		
Metal Digestion	Completed			3015A	05/10/13 10:00	PER		
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
PNA Extraction	Completed			3510C	04/30/13 22:38	EMR		
Metals								
Arsenic	Not detected	mg/L	0.002	E200.8	05/10/13 14:27	PER	0.000052	
Barium	0.049	mg/L	0.005	E200.8	05/10/13 14:27	PER	0.00022	
Cadmium	Not detected	mg/L	0.0005	E200.8	05/10/13 14:27	PER	0.000067	
Chromium	Not detected	mg/L	0.005	E200.8	05/10/13 14:27	PER	0.00013	
Lead	Not detected	mg/L	0.003	E200.8	05/10/13 14:27	PER	0.000043	
Mercury	Not detected	mg/L	0.0002	E245.1	04/29/13 15:00	CCM	0.000030	
Selenium	0.006	mg/L	0.005	E200.8	05/10/13 14:27	PER	0.00027	
Silver	Not detected	mg/L	0.0005	E200.8	05/10/13 14:27	PER	0.000018	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	05/01/13 17:08	PL	0.32	
Acenaphthylene	Not detected	ug/L	5	SW8270C	05/01/13 17:08	PL	0.29	
Anthracene	Not detected	ug/L	5	SW8270C	05/01/13 17:08	PL	0.30	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	05/01/13 17:08	PL	0.28	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	05/01/13 17:08	PL	0.27	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 17:08	PL	0.30	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 17:08	PL	0.30	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	05/01/13 17:08	PL	0.28	
Chrysene	Not detected	ug/L	1	SW8270C	05/01/13 17:08	PL	0.30	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	05/01/13 17:08	PL	0.32	
Fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 17:08	PL	0.32	
Fluorene	Not detected	ug/L	5	SW8270C	05/01/13 17:08	PL	0.31	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	05/01/13 17:08	PL	0.27	
Naphthalene	Not detected	ug/L	5	SW8270C	05/01/13 17:08	PL	0.27	
Phenanthrene	Not detected	ug/L	2	SW8270C	05/01/13 17:08	PL	0.30	
Pyrene	Not detected	ug/L	5	SW8270C	05/01/13 17:08	PL	0.29	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 17:08	PL	0.28	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 17:08	PL	0.31	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 17:48	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 17:48	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.24	

Lab Sample ID: S56230.08 (continued)
Sample Tag: MW-108S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 17:48	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 17:48	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 17:48	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 17:48	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 17:48	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 17:48	JGH	0.20	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 17:48	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 17:48	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 17:48	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.15	
cis-1,2-Dichloroethene	0.42	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.21	J
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 17:48	JGH	1.2	
Chloroform	2	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 17:48	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 17:48	JGH	0.19	
Carbon tetrachloride	2	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 17:48	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 17:48	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 17:48	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 17:48	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.15	

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S56230.08 (continued)
Sample Tag: MW-108S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 17:48	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 17:48	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 17:48	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 17:48	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 17:48	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 17:48	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 17:48	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 17:48	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56230.09
Sample Tag: MW-109S
Collected Date/Time: 04/26/2013 12:25
Matrix: Groundwater
COC Reference: 81592

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.7	IR
2	1L Amber	None	Yes	2.7	IR
1	125ml Plastic	HNO3	Yes	2.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	04/29/13 11:00	CCM		
Metal Digestion	Completed			3015A	05/10/13 10:00	PER		
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
PNA Extraction	Completed			3510C	04/30/13 22:38	EMR		
Metals								
Arsenic	0.004	mg/L	0.002	E200.8	05/10/13 15:54	PER	0.000052	
Barium	0.086	mg/L	0.005	E200.8	05/10/13 15:54	PER	0.00022	
Cadmium	Not detected	mg/L	0.0005	E200.8	05/10/13 15:54	PER	0.000067	
Chromium	Not detected	mg/L	0.005	E200.8	05/10/13 15:54	PER	0.00013	
Lead	Not detected	mg/L	0.003	E200.8	05/10/13 15:54	PER	0.000043	
Mercury	Not detected	mg/L	0.0002	E245.1	04/29/13 15:02	CCM	0.000030	
Selenium	Not detected	mg/L	0.005	E200.8	05/10/13 15:54	PER	0.00027	
Silver	Not detected	mg/L	0.0005	E200.8	05/10/13 15:54	PER	0.000018	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	05/01/13 17:31	PL	0.32	
Acenaphthylene	Not detected	ug/L	5	SW8270C	05/01/13 17:31	PL	0.28	
Anthracene	Not detected	ug/L	5	SW8270C	05/01/13 17:31	PL	0.30	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	05/01/13 17:31	PL	0.28	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	05/01/13 17:31	PL	0.27	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 17:31	PL	0.30	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 17:31	PL	0.29	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	05/01/13 17:31	PL	0.27	
Chrysene	Not detected	ug/L	1	SW8270C	05/01/13 17:31	PL	0.30	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	05/01/13 17:31	PL	0.31	
Fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 17:31	PL	0.32	
Fluorene	Not detected	ug/L	5	SW8270C	05/01/13 17:31	PL	0.30	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	05/01/13 17:31	PL	0.27	
Naphthalene	Not detected	ug/L	5	SW8270C	05/01/13 17:31	PL	0.27	
Phenanthrene	Not detected	ug/L	2	SW8270C	05/01/13 17:31	PL	0.29	
Pyrene	Not detected	ug/L	5	SW8270C	05/01/13 17:31	PL	0.29	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 17:31	PL	0.28	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 17:31	PL	0.30	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 22:31	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 22:31	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.24	

Lab Sample ID: S56230.09 (continued)
Sample Tag: MW-109S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 22:31	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 22:31	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 22:31	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 22:31	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 22:31	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 22:31	JGH	0.20	
Vinyl chloride	17	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 22:31	JGH	0.18	
Chloroethane	0.49	ug/L	5	SW8260B	05/06/13 22:31	JGH	0.21	J
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.28	
1,1-Dichloroethene	4	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 22:31	JGH	0.16	
trans-1,2-Dichloroethene	1	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.14	
1,1-Dichloroethane	3	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.15	
cis-1,2-Dichloroethene	70	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 22:31	JGH	1.2	
Chloroform	0.26	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.15	J
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.36	
1,1,1-Trichloroethane	0.59	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.27	J
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 22:31	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 22:31	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.17	
Trichloroethene	178	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 22:31	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.34	
Tetrachloroethene	0.17	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.13	J
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 22:31	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 22:31	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 22:31	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.15	

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S56230.09 (continued)
Sample Tag: MW-109S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 22:31	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 22:31	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 22:31	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 22:31	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 22:31	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 22:31	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 22:31	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 22:31	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56230.10
Sample Tag: MW-110S
Collected Date/Time: 04/26/2013 13:20
Matrix: Groundwater
COC Reference: 81592

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.7	IR
2	1L Amber	None	Yes	2.7	IR
1	125ml Plastic	HNO3	Yes	2.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	04/29/13 11:00	CCM		
Metal Digestion	Completed			3015A	05/10/13 10:00	PER		
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
PNA Extraction	Completed			3510C	04/30/13 22:38	EMR		
Metals								
Arsenic	0.007	mg/L	0.002	E200.8	05/10/13 15:56	PER	0.000052	
Barium	0.134	mg/L	0.005	E200.8	05/10/13 15:56	PER	0.00022	
Cadmium	Not detected	mg/L	0.0005	E200.8	05/10/13 15:56	PER	0.000067	
Chromium	Not detected	mg/L	0.005	E200.8	05/10/13 15:56	PER	0.00013	
Lead	Not detected	mg/L	0.003	E200.8	05/10/13 15:56	PER	0.000043	
Mercury	Not detected	mg/L	0.0002	E245.1	04/29/13 15:22	CCM	0.000030	
Selenium	Not detected	mg/L	0.005	E200.8	05/10/13 15:56	PER	0.00027	
Silver	Not detected	mg/L	0.0005	E200.8	05/10/13 15:56	PER	0.000018	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	05/01/13 17:53	PL	0.32	
Acenaphthylene	Not detected	ug/L	5	SW8270C	05/01/13 17:53	PL	0.29	
Anthracene	Not detected	ug/L	5	SW8270C	05/01/13 17:53	PL	0.30	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	05/01/13 17:53	PL	0.28	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	05/01/13 17:53	PL	0.27	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 17:53	PL	0.30	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 17:53	PL	0.30	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	05/01/13 17:53	PL	0.28	
Chrysene	Not detected	ug/L	1	SW8270C	05/01/13 17:53	PL	0.30	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	05/01/13 17:53	PL	0.32	
Fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 17:53	PL	0.32	
Fluorene	Not detected	ug/L	5	SW8270C	05/01/13 17:53	PL	0.31	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	05/01/13 17:53	PL	0.27	
Naphthalene	Not detected	ug/L	5	SW8270C	05/01/13 17:53	PL	0.27	
Phenanthrene	Not detected	ug/L	2	SW8270C	05/01/13 17:53	PL	0.30	
Pyrene	Not detected	ug/L	5	SW8270C	05/01/13 17:53	PL	0.29	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 17:53	PL	0.28	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 17:53	PL	0.31	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 18:09	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 18:09	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.24	

Lab Sample ID: S56230.10 (continued)
Sample Tag: MW-110S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 18:09	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 18:09	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 18:09	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 18:09	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 18:09	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 18:09	JGH	0.20	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 18:09	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 18:09	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 18:09	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.15	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 18:09	JGH	1.2	
Chloroform	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 18:09	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 18:09	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 18:09	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 18:09	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 18:09	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 18:09	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.18	

Lab Sample ID: S56230.10 (continued)
Sample Tag: MW-110S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 18:09	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:09	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 18:09	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 18:09	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 18:09	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 18:09	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 18:09	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 18:09	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56230.11
Sample Tag: MW-111S
Collected Date/Time: 04/26/2013 14:10
Matrix: Groundwater
COC Reference: 81592

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.7	IR
2	1L Amber	None	Yes	2.7	IR
1	125ml Plastic	HNO3	Yes	2.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	04/29/13 11:00	CCM		
Metal Digestion	Completed			3015A	05/10/13 10:00	PER		
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
PNA Extraction	Completed			3510C	04/30/13 22:38	EMR		
PNA Extraction (Replicate 01)	Completed			3510C	05/02/13 20:59	EMR		
Metals								
Arsenic	0.002	mg/L	0.002	E200.8	05/10/13 15:58	PER	0.000052	
Barium	0.025	mg/L	0.005	E200.8	05/10/13 15:58	PER	0.00022	
Cadmium	Not detected	mg/L	0.0005	E200.8	05/10/13 15:58	PER	0.000067	
Chromium	Not detected	mg/L	0.005	E200.8	05/10/13 15:58	PER	0.00013	
Lead	Not detected	mg/L	0.003	E200.8	05/10/13 15:58	PER	0.000043	
Mercury	Not detected	mg/L	0.0002	E245.1	04/29/13 15:04	CCM	0.000030	
Selenium	Not detected	mg/L	0.005	E200.8	05/10/13 15:58	PER	0.00027	
Silver	Not detected	mg/L	0.0005	E200.8	05/10/13 15:58	PER	0.000018	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	05/01/13 18:16	PL	0.32	
Acenaphthylene	Not detected	ug/L	5	SW8270C	05/01/13 18:16	PL	0.29	
Anthracene	Not detected	ug/L	5	SW8270C	05/01/13 18:16	PL	0.30	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	05/01/13 18:16	PL	0.28	S
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	05/01/13 18:16	PL	0.27	S
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 18:16	PL	0.30	S
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 18:16	PL	0.30	S
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	05/01/13 18:16	PL	0.28	S
Chrysene	Not detected	ug/L	1	SW8270C	05/01/13 18:16	PL	0.30	S
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	05/01/13 18:16	PL	0.32	S
Fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 18:16	PL	0.32	
Fluorene	Not detected	ug/L	5	SW8270C	05/01/13 18:16	PL	0.31	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	05/01/13 18:16	PL	0.27	S
Naphthalene	Not detected	ug/L	5	SW8270C	05/01/13 18:16	PL	0.27	
Phenanthrene	Not detected	ug/L	2	SW8270C	05/01/13 18:16	PL	0.30	
Pyrene	Not detected	ug/L	5	SW8270C	05/01/13 18:16	PL	0.29	S
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 18:16	PL	0.28	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 18:16	PL	0.31	
Polynuclear Aromatic Hydrocarbon (Replicate 01)								
Acenaphthene	Not detected	ug/L	5	SW8270C	05/03/13 20:41	PL	0.32	
Acenaphthylene	Not detected	ug/L	5	SW8270C	05/03/13 20:41	PL	0.28	

S-Surrogate recovery outside of control limits

Lab Sample ID: S56230.11 (continued)
Sample Tag: MW-111S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatic Hydrocarbon (Replicate 01) (continued)								
Anthracene	Not detected	ug/L	5	SW8270C	05/03/13 20:41	PL	0.30	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	05/03/13 20:41	PL	0.28	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	05/03/13 20:41	PL	0.27	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	05/03/13 20:41	PL	0.30	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	05/03/13 20:41	PL	0.29	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	05/03/13 20:41	PL	0.27	
Chrysene	Not detected	ug/L	1	SW8270C	05/03/13 20:41	PL	0.30	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	05/03/13 20:41	PL	0.31	
Fluoranthene	Not detected	ug/L	1	SW8270C	05/03/13 20:41	PL	0.32	
Fluorene	Not detected	ug/L	5	SW8270C	05/03/13 20:41	PL	0.30	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	05/03/13 20:41	PL	0.27	
Naphthalene	Not detected	ug/L	5	SW8270C	05/03/13 20:41	PL	0.27	
Phenanthrene	Not detected	ug/L	2	SW8270C	05/03/13 20:41	PL	0.29	
Pyrene	Not detected	ug/L	5	SW8270C	05/03/13 20:41	PL	0.29	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/03/13 20:41	PL	0.28	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/03/13 20:41	PL	0.30	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 18:29	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 18:29	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.24	
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 18:29	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 18:29	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 18:29	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 18:29	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 18:29	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 18:29	JGH	0.20	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 18:29	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 18:29	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 18:29	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.15	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 18:29	JGH	1.2	
Chloroform	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 18:29	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 18:29	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.19	

Lab Sample ID: S56230.11 (continued)
Sample Tag: MW-111S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 18:29	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 18:29	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 18:29	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 18:29	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 18:29	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:29	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 18:29	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 18:29	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 18:29	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 18:29	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 18:29	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 18:29	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56230.12
Sample Tag: DUP-1
Collected Date/Time: 04/26/2013 00:01
Matrix: Groundwater
COC Reference: 81592

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.7	IR
2	1L Amber	None	Yes	2.7	IR
1	125ml Plastic	HNO3	Yes	2.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	04/29/13 11:00	CCM		
Metal Digestion	Completed			3015A	05/10/13 10:00	PER		
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
PNA Extraction	Completed			3510C	04/30/13 22:38	EMR		
Metals								
Arsenic	0.003	mg/L	0.002	E200.8	05/10/13 16:00	PER	0.000052	
Barium	0.026	mg/L	0.005	E200.8	05/10/13 16:00	PER	0.00022	
Cadmium	Not detected	mg/L	0.0005	E200.8	05/10/13 16:00	PER	0.000067	
Chromium	Not detected	mg/L	0.005	E200.8	05/10/13 16:00	PER	0.00013	
Lead	Not detected	mg/L	0.003	E200.8	05/10/13 16:00	PER	0.000043	
Mercury	Not detected	mg/L	0.0002	E245.1	04/29/13 15:16	CCM	0.000030	
Selenium	Not detected	mg/L	0.005	E200.8	05/10/13 16:00	PER	0.00027	
Silver	Not detected	mg/L	0.0005	E200.8	05/10/13 16:00	PER	0.000018	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	05/01/13 18:38	PL	0.32	
Acenaphthylene	Not detected	ug/L	5	SW8270C	05/01/13 18:38	PL	0.29	
Anthracene	Not detected	ug/L	5	SW8270C	05/01/13 18:38	PL	0.30	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	05/01/13 18:38	PL	0.28	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	05/01/13 18:38	PL	0.27	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 18:38	PL	0.30	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 18:38	PL	0.30	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	05/01/13 18:38	PL	0.28	
Chrysene	Not detected	ug/L	1	SW8270C	05/01/13 18:38	PL	0.30	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	05/01/13 18:38	PL	0.32	
Fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 18:38	PL	0.32	
Fluorene	Not detected	ug/L	5	SW8270C	05/01/13 18:38	PL	0.31	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	05/01/13 18:38	PL	0.27	
Naphthalene	Not detected	ug/L	5	SW8270C	05/01/13 18:38	PL	0.27	
Phenanthrene	Not detected	ug/L	2	SW8270C	05/01/13 18:38	PL	0.30	
Pyrene	Not detected	ug/L	5	SW8270C	05/01/13 18:38	PL	0.29	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 18:38	PL	0.28	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 18:38	PL	0.31	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 20:50	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 20:50	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.24	

Lab Sample ID: S56230.12 (continued)
Sample Tag: DUP-1

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 20:50	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 20:50	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 20:50	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 20:50	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 20:50	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 20:50	JGH	0.20	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 20:50	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 20:50	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 20:50	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.15	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 20:50	JGH	1.2	
Chloroform	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 20:50	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 20:50	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 20:50	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 20:50	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 20:50	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 20:50	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.18	

Lab Sample ID: S56230.12 (continued)
Sample Tag: DUP-1

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 20:50	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:50	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 20:50	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 20:50	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 20:50	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 20:50	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 20:50	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 20:50	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56230.13
Sample Tag: DUP-2
Collected Date/Time: 04/26/2013 00:01
Matrix: Groundwater
COC Reference: 81594

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.7	IR
2	1L Amber	None	Yes	2.7	IR
1	125ml Plastic	HNO3	Yes	2.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	04/29/13 11:00	CCM		
Metal Digestion	Completed			3015A	05/10/13 10:00	PER		
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
PNA Extraction	Completed			3510C	04/30/13 22:38	EMR		
Metals								
Arsenic	0.041	mg/L	0.002	E200.8	05/10/13 16:01	PER	0.000052	
Barium	0.232	mg/L	0.005	E200.8	05/10/13 16:01	PER	0.00022	
Cadmium	Not detected	mg/L	0.0005	E200.8	05/10/13 16:01	PER	0.000067	
Chromium	Not detected	mg/L	0.005	E200.8	05/10/13 16:01	PER	0.00013	
Lead	Not detected	mg/L	0.003	E200.8	05/10/13 16:01	PER	0.000043	
Mercury	Not detected	mg/L	0.0002	E245.1	04/29/13 15:18	CCM	0.000030	
Selenium	Not detected	mg/L	0.005	E200.8	05/10/13 16:01	PER	0.00027	
Silver	Not detected	mg/L	0.0005	E200.8	05/10/13 16:01	PER	0.000018	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	05/01/13 19:01	PL	0.32	
Acenaphthylene	Not detected	ug/L	5	SW8270C	05/01/13 19:01	PL	0.29	
Anthracene	Not detected	ug/L	5	SW8270C	05/01/13 19:01	PL	0.30	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	05/01/13 19:01	PL	0.28	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	05/01/13 19:01	PL	0.27	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 19:01	PL	0.30	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 19:01	PL	0.30	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	05/01/13 19:01	PL	0.28	
Chrysene	Not detected	ug/L	1	SW8270C	05/01/13 19:01	PL	0.30	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	05/01/13 19:01	PL	0.32	
Fluoranthene	Not detected	ug/L	1	SW8270C	05/01/13 19:01	PL	0.32	
Fluorene	Not detected	ug/L	5	SW8270C	05/01/13 19:01	PL	0.31	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	05/01/13 19:01	PL	0.27	
Naphthalene	Not detected	ug/L	5	SW8270C	05/01/13 19:01	PL	0.27	
Phenanthrene	Not detected	ug/L	2	SW8270C	05/01/13 19:01	PL	0.30	
Pyrene	Not detected	ug/L	5	SW8270C	05/01/13 19:01	PL	0.29	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 19:01	PL	0.28	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/01/13 19:01	PL	0.31	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 21:10	JGH	0.27	
Acetone	4.4	ug/L	50	SW8260B	05/06/13 21:10	JGH	4.0	J

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S56230.13 (continued)
Sample Tag: DUP-2

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.24	
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 21:10	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 21:10	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 21:10	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 21:10	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 21:10	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 21:10	JGH	0.20	
Vinyl chloride	0.66	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.24	J
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 21:10	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 21:10	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 21:10	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.15	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 21:10	JGH	1.2	
Chloroform	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 21:10	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 21:10	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 21:10	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 21:10	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 21:10	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 21:10	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.12	

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S56230.13 (continued)
Sample Tag: DUP-2

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 21:10	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:10	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 21:10	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 21:10	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 21:10	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 21:10	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 21:10	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 21:10	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56230.14
Sample Tag: Trip Blank (4/25)
Collected Date/Time: 04/25/2013 00:01
Matrix: Groundwater
COC Reference: 81594

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 18:49	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 18:49	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.24	
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 18:49	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 18:49	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 18:49	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 18:49	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 18:49	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 18:49	JGH	0.20	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 18:49	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 18:49	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 18:49	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.15	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 18:49	JGH	1.2	
Chloroform	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 18:49	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 18:49	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 18:49	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 18:49	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.12	

Lab Sample ID: S56230.14 (continued)
Sample Tag: Trip Blank (4/25)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 18:49	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 18:49	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 18:49	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 18:49	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 18:49	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 18:49	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 18:49	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 18:49	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 18:49	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 18:49	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56230.15
Sample Tag: Field Blank (4/25)
Collected Date/Time: 04/25/2013 00:01
Matrix: Groundwater
COC Reference: 81594

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 19:10	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 19:10	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.24	
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 19:10	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 19:10	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 19:10	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 19:10	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 19:10	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 19:10	JGH	0.20	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 19:10	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 19:10	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 19:10	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.15	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 19:10	JGH	1.2	
Chloroform	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 19:10	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 19:10	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 19:10	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 19:10	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.12	

Lab Sample ID: S56230.15 (continued)
Sample Tag: Field Blank (4/25)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 19:10	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 19:10	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 19:10	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:10	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 19:10	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 19:10	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 19:10	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 19:10	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 19:10	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 19:10	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56230.16
Sample Tag: Trip Blank (4/26)
Collected Date/Time: 04/26/2013 00:01
Matrix: Groundwater
COC Reference: 81594

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 19:30	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 19:30	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.24	
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 19:30	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 19:30	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 19:30	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 19:30	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 19:30	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 19:30	JGH	0.20	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 19:30	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 19:30	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 19:30	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.15	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 19:30	JGH	1.2	
Chloroform	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 19:30	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 19:30	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 19:30	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 19:30	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.12	

Lab Sample ID: S56230.16 (continued)
Sample Tag: Trip Blank (4/26)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 19:30	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 19:30	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 19:30	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:30	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 19:30	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 19:30	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 19:30	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 19:30	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 19:30	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 19:30	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56230.17
Sample Tag: Field Blank (4/26)
Collected Date/Time: 04/26/2013 00:01
Matrix: Groundwater
COC Reference: 81594

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	2.7	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:30	WAT		
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 19:50	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 19:50	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.24	
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 19:50	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 19:50	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 19:50	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 19:50	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 19:50	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 19:50	JGH	0.20	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 19:50	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 19:50	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 19:50	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.15	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 19:50	JGH	1.2	
Chloroform	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 19:50	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 19:50	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 19:50	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 19:50	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.12	

Lab Sample ID: S56230.17 (continued)
Sample Tag: Field Blank (4/26)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 19:50	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 19:50	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 19:50	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 19:50	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 19:50	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 19:50	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 19:50	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 19:50	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 19:50	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 19:50	JGH	0.21	

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 2

81592

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Mike Smith
COMPANY: Applied EcoSystems, Inc.
ADDRESS: 6-4300 S. Saginaw
CITY: Burton STATE: MI ZIP CODE: 48529
PHONE NO.: 810.715.2525 FAX NO.: 810.715.2526 P.O. NO.: 11-4317-102
E-MAIL ADDRESS: mds-ae@yahoo.com QUOTE NO.:

INVOICE TO

CONTACT NAME: RACER ☐ SAME
COMPANY: ↳ 12990-11-01
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: 12990-11-01 / Former Building 9
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Josh Adams / Josh Adams

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☒ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOCs	PNAs	8 RCRA Metals	Special Instructions
50230.01	4/25/13	14:55	MW-100S	GW	6	2	3	1					X	X	X	Task 6
.02	4/25/13	14:29	MW-101S													
.03	4/25/13	13:41	MW-102S													
.04	4/26/13	14:25	MW-103S													
.05	4/25/13	12:10	MW-104S													
.06	4/25/13	12:54	MW-105S													
.07	4/25/13	16:03	MW-107S													
.08	4/26/13	11:40	MW-108S													
.09	4/26/13	12:25	MW-109S													
.10	4/26/13	13:20	MW-110S													
.11	4/26/13	14:10	MW-111S													
.12	4/26/13	—	DUP-1													

RELINQUISHED BY: SIGNATURE/ORGANIZATION: Josh Adams ☒ Sampler DATE: 4/26/13 TIME: 17:48
RECEIVED BY: SIGNATURE/ORGANIZATION: DATE: TIME:
RELINQUISHED BY: SIGNATURE/ORGANIZATION: DATE: TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION: DATE: TIME:

RELINQUISHED BY: SIGNATURE/ORGANIZATION: Dropbox DATE: TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION: Talbot Faust DATE: 4/29/13 TIME: 800

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 2.7

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 5.18.12

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
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C.O.C. PAGE # 2 OF 2

81594

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Mike Smith
COMPANY: Applied EcoSystems, Inc.
ADDRESS: 4-4300 S. Saginaw
CITY: Burton STATE: MI ZIP CODE: 48529
PHONE NO.: 810.715.2525 FAX NO.: 810.715.2526 P.O. NO.: 11-4317-102
E-MAIL ADDRESS: ae_mds@yahoo.com QUOTE NO.:

INVOICE TO

CONTACT NAME: ☐ SAME
COMPANY: RACER
ADDRESS: ↳ 12990-11-01
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: 12990-11-01 / Former Building 9
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Josh Adams / [signature]

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☒ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☐ Other

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	TIME	SAMPLE TAG. IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOCs	PNAs	8 RCRA Metals	Special Instructions
56230.13	4/26/13	—	DUP-2	GW	6	2	3	1					X	X	X	Task 6
.14	4/25/13	—	Trip Blank (4/25)		3		3									
.15	4/25/13	—	Field Blank (4/25)		3		3									
.16	4/26/13	—	Trip Blank (4/26)		3		3									
.17	4/26/13	—	Field Blank (4/26)		3		3									

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
[signature] ☒ Sampler	4/26/13	17:40
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
Dropbox		
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
Tallulah Faust	4/29/13	800

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 2.7

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 5.18.12

Analytical Laboratory Report

Report ID: S56254.01(01)
Generated on 05/10/2013

Report to

Attention: Mike Smith
Applied Ecosystems
G4300 S. Saginaw St.
Burton, MI 48529

Phone: 810-715-2525 FAX: 810-715-2526
Email: msmith@appliedecosystems.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
Tabitha Faust (tfaust@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S56254.01-S56254.10
Project: 12990-11-01/ Former Building 9-Delphi
Collected Date: 04/30/2013
Submitted Date/Time: 05/01/2013 08:41
Sampled by: Josh Adams
P.O. #: 11-4317-102

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc..

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified.Full certification lists are available upon request.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (10 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S56254.01	SB-119 (04/30/2013) (10-11)	Soil	04/30/2013 13:47
S56254.02	SB-119 (04/30/2013) (17-18)	Soil	04/30/2013 14:03
S56254.03	SB-120 (04/30/2013) (8-9)	Soil	04/30/2013 14:51
S56254.04	SB-121 (04/30/2013) (15-16)	Soil	04/30/2013 15:18
S56254.05	SB-121 (04/30/2013) (23-24)	Soil	04/30/2013 15:26
S56254.06	SB-122 (04/30/2013) (15-16)	Soil	04/30/2013 16:04
S56254.07	SB-123 (04/30/2013) (5-6)	Soil	04/30/2013 16:33
S56254.08	DUP-1 (04/30/2013)	Soil	04/30/2013 00:01
S56254.09	Field Blank (04/30/2013)	Methanol	04/30/2013 00:01
S56254.10	Trip Blank (04/30/2013)	Methanol	04/30/2013 00:01

Analytical Laboratory Report

Lab Sample ID: S56254.01
Sample Tag: SB-119 (04/30/2013) (10-11)
Collected Date/Time: 04/30/2013 13:47
Matrix: Soil
COC Reference: 82695

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.2	IR
1	4oz Glass	None	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Inorganics								
Total Solids	86	%	1	Std M 2540 B	05/02/13 11:00	WAR		
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	300	SW8260B/5035	05/08/13 14:17	WAT	16	
Acetone	Not detected	ug/kg	1,000	SW8260B/5035	05/08/13 14:17	WAT	67	
Methyl iodide	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	18	
Carbon disulfide	Not detected	ug/kg	400	SW8260B/5035	05/08/13 14:17	WAT	7.8	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	SW8260B/5035	05/08/13 14:17	WAT	13	
Acrylonitrile	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	18	
2-Butanone (MEK)	Not detected	ug/kg	1,100	SW8260B/5035	05/08/13 14:17	WAT	18	
Dichlorodifluoromethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 14:17	WAT	27	
Chloromethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 14:17	WAT	40	
Vinyl chloride	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	17	
Bromomethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 14:17	WAT	11	
Chloroethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 14:17	WAT	8.5	
Trichlorofluoromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	11	
1,1-Dichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	13	
Methylene chloride	13	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	11	BJ
trans-1,2-Dichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	12	
1,1-Dichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	9.9	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	14	
Tetrahydrofuran	Not detected	ug/kg	1,000	SW8260B/5035	05/08/13 14:17	WAT	230	
Chloroform	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	12	
Bromochloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	15	
1,1,1-Trichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	7.1	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	SW8260B/5035	05/08/13 14:17	WAT	28	
2-Hexanone	Not detected	ug/kg	4,000	SW8260B/5035	05/08/13 14:17	WAT	16	
Carbon tetrachloride	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	8.5	
Benzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	13	
1,2-Dichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	13	
Trichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	11	
1,2-Dichloropropane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	13	
Bromodichloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	11	
Dibromomethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 14:17	WAT	15	
cis-1,3-Dichloropropene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	6.4	
Toluene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	11	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	7.8	
1,1,2-Trichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	23	
Tetrachloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	12	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	21	

B-Compound also found in associated method blank J-Estimated value less than reporting limit, but greater than MDL

Analytical Laboratory Report

Lab Sample ID: S56254.01 (continued)
Sample Tag: SB-119 (04/30/2013) (10-11)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Dibromochloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	9.2	
1,2-Dibromoethane	Not detected	ug/kg	30	SW8260B/5035	05/08/13 14:17	WAT	14	M
Chlorobenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	13	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	7.8	
Ethylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	16	
p,m-Xylene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	31	
o-Xylene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	15	
Styrene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	12	
Isopropylbenzene	Not detected	ug/kg	400	SW8260B/5035	05/08/13 14:17	WAT	15	
Bromoform	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	9.2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	21	
1,2,3-Trichloropropane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	19	
n-Propylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	16	
Bromobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	18	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	18	
tert-Butylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	15	
1,2,4-Trimethylbenzene	21	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	16	J
sec-Butylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	18	
p-Isopropyltoluene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	19	
1,3-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	14	
1,4-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	13	
1,2-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	18	
1,2,3-Trimethylbenzene	12.1	ug/kg	100	SW8260B/5035	05/08/13 14:17	WAT	2.8	BJ
n-Butylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:17	WAT	17	
Hexachloroethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 14:17	WAT	11	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 14:17	WAT	13	
1,2,4-Trichlorobenzene	Not detected	ug/kg	470	SW8260B/5035	05/08/13 14:17	WAT	16	
1,2,3-Trichlorobenzene	Not detected	ug/kg	470	SW8260B/5035	05/08/13 14:17	WAT	20	
Naphthalene	64	ug/kg	470	SW8260B/5035	05/08/13 14:17	WAT	18	J
2-Methylnaphthalene	49	ug/kg	470	SW8260B/5035	05/08/13 14:17	WAT	20	J

M-Result reported to MDL not RDL
J-Estimated value less than reporting limit, but greater than MDL
B-Compound also found in associated method blank

Analytical Laboratory Report

Lab Sample ID: S56254.02
Sample Tag: SB-119 (04/30/2013) (17-18)
Collected Date/Time: 04/30/2013 14:03
Matrix: Soil
COC Reference: 82695

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.2	IR
1	4oz Glass	None	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Inorganics								
Total Solids	87	%	1	Std M 2540 B	05/02/13 11:00	WAR		
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	300	SW8260B/5035	05/08/13 14:36	WAT	16	
Acetone	Not detected	ug/kg	1,000	SW8260B/5035	05/08/13 14:36	WAT	64	
Methyl iodide	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	17	
Carbon disulfide	Not detected	ug/kg	300	SW8260B/5035	05/08/13 14:36	WAT	7.4	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	SW8260B/5035	05/08/13 14:36	WAT	13	
Acrylonitrile	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	17	
2-Butanone (MEK)	Not detected	ug/kg	1,000	SW8260B/5035	05/08/13 14:36	WAT	17	
Dichlorodifluoromethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 14:36	WAT	26	
Chloromethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 14:36	WAT	39	
Vinyl chloride	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	16	
Bromomethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 14:36	WAT	11	
Chloroethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 14:36	WAT	8.1	
Trichlorofluoromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	11	
1,1-Dichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	12	
Methylene chloride	15	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	11	BJ
trans-1,2-Dichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	12	
1,1-Dichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	9.5	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	14	
Tetrahydrofuran	Not detected	ug/kg	1,000	SW8260B/5035	05/08/13 14:36	WAT	220	
Chloroform	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	12	
Bromochloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	14	
1,1,1-Trichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	6.8	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	SW8260B/5035	05/08/13 14:36	WAT	26	
2-Hexanone	Not detected	ug/kg	3,000	SW8260B/5035	05/08/13 14:36	WAT	15	
Carbon tetrachloride	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	8.1	
Benzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	13	
1,2-Dichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	12	
Trichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	11	
1,2-Dichloropropane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	13	
Bromodichloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	10	
Dibromomethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 14:36	WAT	14	
cis-1,3-Dichloropropene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	6.1	
Toluene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	11	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	7.4	
1,1,2-Trichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	22	
Tetrachloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	12	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	20	

B-Compound also found in associated method blank J-Estimated value less than reporting limit, but greater than MDL

Analytical Laboratory Report

Lab Sample ID: S56254.02 (continued)
Sample Tag: SB-119 (04/30/2013) (17-18)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Dibromochloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	8.8	
1,2-Dibromoethane	Not detected	ug/kg	30	SW8260B/5035	05/08/13 14:36	WAT	14	M
Chlorobenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	12	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	7.4	
Ethylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	16	
p,m-Xylene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	30	
o-Xylene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	14	
Styrene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	12	
Isopropylbenzene	Not detected	ug/kg	300	SW8260B/5035	05/08/13 14:36	WAT	14	
Bromoform	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	8.8	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	20	
1,2,3-Trichloropropane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	18	
n-Propylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	16	
Bromobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	17	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	18	
tert-Butylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	14	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	15	
sec-Butylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	17	
p-Isopropyltoluene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	18	
1,3-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	14	
1,4-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	13	
1,2-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	18	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 14:36	WAT	2.7	
n-Butylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 14:36	WAT	16	
Hexachloroethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 14:36	WAT	10	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 14:36	WAT	13	
1,2,4-Trichlorobenzene	Not detected	ug/kg	450	SW8260B/5035	05/08/13 14:36	WAT	16	
1,2,3-Trichlorobenzene	Not detected	ug/kg	450	SW8260B/5035	05/08/13 14:36	WAT	19	
Naphthalene	22	ug/kg	450	SW8260B/5035	05/08/13 14:36	WAT	17	J
2-Methylnaphthalene	19	ug/kg	450	SW8260B/5035	05/08/13 14:36	WAT	19	J

M-Result reported to MDL not RDL
J-Estimated value less than reporting limit, but greater than MDL

Analytical Laboratory Report

Lab Sample ID: S56254.03
Sample Tag: SB-120 (04/30/2013) (8-9)
Collected Date/Time: 04/30/2013 14:51
Matrix: Soil
COC Reference: 82695

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.2	IR
1	4oz Glass	None	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Inorganics								
Total Solids	79	%	1	Std M 2540 B	05/02/13 11:00	WAR		
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	300	SW8260B/5035	05/08/13 14:54	WAT	18	
Acetone	Not detected	ug/kg	2,000	SW8260B/5035	05/08/13 14:54	WAT	74	
Methyl iodide	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	20	
Carbon disulfide	Not detected	ug/kg	400	SW8260B/5035	05/08/13 14:54	WAT	8.7	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	SW8260B/5035	05/08/13 14:54	WAT	15	
Acrylonitrile	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	20	
2-Butanone (MEK)	Not detected	ug/kg	1,200	SW8260B/5035	05/08/13 14:54	WAT	20	
Dichlorodifluoromethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 14:54	WAT	30	
Chloromethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 14:54	WAT	45	
Vinyl chloride	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	19	
Bromomethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 14:54	WAT	13	
Chloroethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 14:54	WAT	9.5	
Trichlorofluoromethane	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	13	
1,1-Dichloroethene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	14	
Methylene chloride	18	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	13	BJ
trans-1,2-Dichloroethene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	13	
1,1-Dichloroethane	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	11	
cis-1,2-Dichloroethene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	16	
Tetrahydrofuran	Not detected	ug/kg	2,000	SW8260B/5035	05/08/13 14:54	WAT	260	
Chloroform	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	13	
Bromochloromethane	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	17	
1,1,1-Trichloroethane	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	7.9	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	SW8260B/5035	05/08/13 14:54	WAT	31	
2-Hexanone	Not detected	ug/kg	4,000	SW8260B/5035	05/08/13 14:54	WAT	17	
Carbon tetrachloride	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	9.5	
Benzene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	15	
1,2-Dichloroethane	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	14	
Trichloroethene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	13	
1,2-Dichloropropane	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	15	
Bromodichloromethane	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	12	
Dibromomethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 14:54	WAT	17	
cis-1,3-Dichloropropene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	7.1	
Toluene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	13	
trans-1,3-Dichloropropene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	8.7	
1,1,2-Trichloroethane	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	25	
Tetrachloroethene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	13	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	23	

B-Compound also found in associated method blank J-Estimated value less than reporting limit, but greater than MDL

Analytical Laboratory Report

Lab Sample ID: S56254.03 (continued)
Sample Tag: SB-120 (04/30/2013) (8-9)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Dibromochloromethane	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	10	
1,2-Dibromoethane	Not detected	ug/kg	30	SW8260B/5035	05/08/13 14:54	WAT	16	M
Chlorobenzene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	14	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	8.7	
Ethylbenzene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	18	
p,m-Xylene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	35	
o-Xylene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	17	
Styrene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	13	
Isopropylbenzene	Not detected	ug/kg	400	SW8260B/5035	05/08/13 14:54	WAT	17	
Bromoform	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	10	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	23	
1,2,3-Trichloropropane	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	21	
n-Propylbenzene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	18	
Bromobenzene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	20	
1,3,5-Trimethylbenzene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	21	
tert-Butylbenzene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	17	
1,2,4-Trimethylbenzene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	17	
sec-Butylbenzene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	20	
p-Isopropyltoluene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	21	
1,3-Dichlorobenzene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	16	
1,4-Dichlorobenzene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	15	
1,2-Dichlorobenzene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	21	
1,2,3-Trimethylbenzene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 14:54	WAT	3.2	
n-Butylbenzene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 14:54	WAT	19	
Hexachloroethane	Not detected	ug/kg	500	SW8260B/5035	05/08/13 14:54	WAT	12	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 14:54	WAT	15	
1,2,4-Trichlorobenzene	Not detected	ug/kg	520	SW8260B/5035	05/08/13 14:54	WAT	18	
1,2,3-Trichlorobenzene	Not detected	ug/kg	520	SW8260B/5035	05/08/13 14:54	WAT	22	
Naphthalene	Not detected	ug/kg	520	SW8260B/5035	05/08/13 14:54	WAT	20	
2-Methylnaphthalene	Not detected	ug/kg	520	SW8260B/5035	05/08/13 14:54	WAT	22	

M-Result reported to MDL not RDL

Analytical Laboratory Report

Lab Sample ID: S56254.04
Sample Tag: SB-121 (04/30/2013) (15-16)
Collected Date/Time: 04/30/2013 15:18
Matrix: Soil
COC Reference: 82695

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.2	IR
1	4oz Glass	None	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Inorganics								
Total Solids	86	%	1	Std M 2540 B	05/02/13 11:00	WAR		
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	300	SW8260B/5035	05/08/13 15:13	WAT	16	
Acetone	Not detected	ug/kg	1,000	SW8260B/5035	05/08/13 15:13	WAT	65	
Methyl iodide	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	17	
Carbon disulfide	Not detected	ug/kg	300	SW8260B/5035	05/08/13 15:13	WAT	7.6	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	SW8260B/5035	05/08/13 15:13	WAT	13	
Acrylonitrile	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	17	
2-Butanone (MEK)	Not detected	ug/kg	1,000	SW8260B/5035	05/08/13 15:13	WAT	17	
Dichlorodifluoromethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 15:13	WAT	26	
Chloromethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 15:13	WAT	39	
Vinyl chloride	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	17	
Bromomethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 15:13	WAT	11	
Chloroethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 15:13	WAT	8.3	
Trichlorofluoromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	11	
1,1-Dichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	12	
Methylene chloride	14	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	11	BJ
trans-1,2-Dichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	12	
1,1-Dichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	9.7	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	14	
Tetrahydrofuran	Not detected	ug/kg	1,000	SW8260B/5035	05/08/13 15:13	WAT	230	
Chloroform	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	12	
Bromochloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	14	
1,1,1-Trichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	6.9	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	SW8260B/5035	05/08/13 15:13	WAT	27	
2-Hexanone	Not detected	ug/kg	3,000	SW8260B/5035	05/08/13 15:13	WAT	15	
Carbon tetrachloride	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	8.3	
Benzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	13	
1,2-Dichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	12	
Trichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	11	
1,2-Dichloropropane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	13	
Bromodichloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	10	
Dibromomethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 15:13	WAT	14	
cis-1,3-Dichloropropene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	6.2	
Toluene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	11	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	7.6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	22	
Tetrachloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	12	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	20	

B-Compound also found in associated method blank J-Estimated value less than reporting limit, but greater than MDL

Analytical Laboratory Report

Lab Sample ID: S56254.04 (continued)
Sample Tag: SB-121 (04/30/2013) (15-16)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Dibromochloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	9.0	
1,2-Dibromoethane	Not detected	ug/kg	30	SW8260B/5035	05/08/13 15:13	WAT	14	M
Chlorobenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	12	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	7.6	
Ethylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	16	
p,m-Xylene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	30	
o-Xylene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	14	
Styrene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	12	
Isopropylbenzene	Not detected	ug/kg	300	SW8260B/5035	05/08/13 15:13	WAT	14	
Bromoform	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	9.0	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	20	
1,2,3-Trichloropropane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	19	
n-Propylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	16	
Bromobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	17	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	18	
tert-Butylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	14	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	15	
sec-Butylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	17	
p-Isopropyltoluene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	19	
1,3-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	14	
1,4-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	13	
1,2-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	18	
1,2,3-Trimethylbenzene	5.5	ug/kg	100	SW8260B/5035	05/08/13 15:13	WAT	2.8	BJ
n-Butylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 15:13	WAT	17	
Hexachloroethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 15:13	WAT	10	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 15:13	WAT	13	
1,2,4-Trichlorobenzene	Not detected	ug/kg	460	SW8260B/5035	05/08/13 15:13	WAT	16	
1,2,3-Trichlorobenzene	Not detected	ug/kg	460	SW8260B/5035	05/08/13 15:13	WAT	19	
Naphthalene	Not detected	ug/kg	460	SW8260B/5035	05/08/13 15:13	WAT	17	
2-Methylnaphthalene	25	ug/kg	460	SW8260B/5035	05/08/13 15:13	WAT	19	J

M-Result reported to MDL not RDL
B-Compound also found in associated method blank J-Estimated value less than reporting limit, but greater than MDL

Analytical Laboratory Report

Lab Sample ID: S56254.05
Sample Tag: SB-121 (04/30/2013) (23-24)
Collected Date/Time: 04/30/2013 15:26
Matrix: Soil
COC Reference: 82695

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.2	IR
1	4oz Glass	None	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Inorganics								
Total Solids	81	%	1	Std M 2540 B	05/02/13 11:00	WAR		
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	300	SW8260B/5035	05/08/13 15:31	WAT	18	
Acetone	Not detected	ug/kg	2,000	SW8260B/5035	05/08/13 15:31	WAT	73	
Methyl iodide	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	20	
Carbon disulfide	Not detected	ug/kg	400	SW8260B/5035	05/08/13 15:31	WAT	8.6	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	SW8260B/5035	05/08/13 15:31	WAT	15	
Acrylonitrile	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	20	
2-Butanone (MEK)	Not detected	ug/kg	1,200	SW8260B/5035	05/08/13 15:31	WAT	20	
Dichlorodifluoromethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 15:31	WAT	30	
Chloromethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 15:31	WAT	44	
Vinyl chloride	110	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	19	
Bromomethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 15:31	WAT	12	
Chloroethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 15:31	WAT	9.4	
Trichlorofluoromethane	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	12	
1,1-Dichloroethene	16	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	14	J
Methylene chloride	19	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	12	BJ
trans-1,2-Dichloroethene	66	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	13	J
1,1-Dichloroethane	57	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	11	J
cis-1,2-Dichloroethene	2,970	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	16	
Tetrahydrofuran	Not detected	ug/kg	2,000	SW8260B/5035	05/08/13 15:31	WAT	260	
Chloroform	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	13	
Bromochloromethane	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	16	
1,1,1-Trichloroethane	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	7.8	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	SW8260B/5035	05/08/13 15:31	WAT	30	
2-Hexanone	Not detected	ug/kg	4,000	SW8260B/5035	05/08/13 15:31	WAT	17	
Carbon tetrachloride	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	9.4	
Benzene	44	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	15	J
1,2-Dichloroethane	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	14	
Trichloroethene	400	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	12	
1,2-Dichloropropane	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	15	
Bromodichloromethane	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	12	
Dibromomethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 15:31	WAT	16	
cis-1,3-Dichloropropene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	7.0	
Toluene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	12	
trans-1,3-Dichloropropene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	8.6	
1,1,2-Trichloroethane	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	25	
Tetrachloroethene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	13	

J-Estimated value less than reporting limit, but greater than MDL
B-Compound also found in associated method blank

Analytical Laboratory Report

Lab Sample ID: S56254.05 (continued)
Sample Tag: SB-121 (04/30/2013) (23-24)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	23	
Dibromochloromethane	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	10	
1,2-Dibromoethane	Not detected	ug/kg	30	SW8260B/5035	05/08/13 15:31	WAT	16	M
Chlorobenzene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	14	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	8.6	
Ethylbenzene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	18	
p,m-Xylene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	34	
o-Xylene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	16	
Styrene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	13	
Isopropylbenzene	Not detected	ug/kg	400	SW8260B/5035	05/08/13 15:31	WAT	16	
Bromoform	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	10	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	23	
1,2,3-Trichloropropane	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	21	
n-Propylbenzene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	18	
Bromobenzene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	20	
1,3,5-Trimethylbenzene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	20	
tert-Butylbenzene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	16	
1,2,4-Trimethylbenzene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	17	
sec-Butylbenzene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	20	
p-Isopropyltoluene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	21	
1,3-Dichlorobenzene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	16	
1,4-Dichlorobenzene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	15	
1,2-Dichlorobenzene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	20	
1,2,3-Trimethylbenzene	Not detected	ug/kg	200	SW8260B/5035	05/08/13 15:31	WAT	3.1	
n-Butylbenzene	Not detected	ug/kg	80	SW8260B/5035	05/08/13 15:31	WAT	19	
Hexachloroethane	Not detected	ug/kg	500	SW8260B/5035	05/08/13 15:31	WAT	12	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 15:31	WAT	15	
1,2,4-Trichlorobenzene	Not detected	ug/kg	510	SW8260B/5035	05/08/13 15:31	WAT	18	
1,2,3-Trichlorobenzene	Not detected	ug/kg	510	SW8260B/5035	05/08/13 15:31	WAT	22	
Naphthalene	Not detected	ug/kg	510	SW8260B/5035	05/08/13 15:31	WAT	20	
2-Methylnaphthalene	Not detected	ug/kg	510	SW8260B/5035	05/08/13 15:31	WAT	22	

M-Result reported to MDL not RDL

Analytical Laboratory Report

Lab Sample ID: S56254.06
Sample Tag: SB-122 (04/30/2013) (15-16)
Collected Date/Time: 04/30/2013 16:04
Matrix: Soil
COC Reference: 82695

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.2	IR
1	4oz Glass	None	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Inorganics								
Total Solids	91	%	1	Std M 2540 B	05/02/13 11:00	WAR		
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	3,000	SW8260B/5035	05/09/13 13:18	JGH	150	Y
Acetone	Not detected	ug/kg	10,000	SW8260B/5035	05/09/13 13:18	JGH	590	Y
Methyl iodide	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	160	Y
Carbon disulfide	Not detected	ug/kg	3,000	SW8260B/5035	05/09/13 13:18	JGH	69	Y
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	3,000	SW8260B/5035	05/09/13 13:18	JGH	120	Y
Acrylonitrile	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	160	Y
2-Butanone (MEK)	Not detected	ug/kg	9,500	SW8260B/5035	05/09/13 13:18	JGH	160	Y
Dichlorodifluoromethane	Not detected	ug/kg	3,000	SW8260B/5035	05/09/13 13:18	JGH	240	Y
Chloromethane	Not detected	ug/kg	3,000	SW8260B/5035	05/09/13 13:18	JGH	360	Y
Vinyl chloride	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	150	Y
Bromomethane	Not detected	ug/kg	3,000	SW8260B/5035	05/09/13 13:18	JGH	100	Y
Chloroethane	Not detected	ug/kg	3,000	SW8260B/5035	05/09/13 13:18	JGH	76	Y
Trichlorofluoromethane	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	100	Y
1,1-Dichloroethene	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	110	Y
Methylene chloride	100	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	100	BJY
trans-1,2-Dichloroethene	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	110	Y
1,1-Dichloroethane	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	88	Y
cis-1,2-Dichloroethene	1,600	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	130	Y
Tetrahydrofuran	Not detected	ug/kg	10,000	SW8260B/5035	05/09/13 13:18	JGH	2100	Y
Chloroform	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	110	Y
Bromochloromethane	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	130	Y
1,1,1-Trichloroethane	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	63	Y
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	30,000	SW8260B/5035	05/09/13 13:18	JGH	250	Y
2-Hexanone	Not detected	ug/kg	30,000	SW8260B/5035	05/09/13 13:18	JGH	140	Y
Carbon tetrachloride	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	76	Y
Benzene	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	120	Y
1,2-Dichloroethane	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	110	Y
Trichloroethene	14,400	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	100	Y
1,2-Dichloropropane	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	120	Y
Bromodichloromethane	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	95	Y
Dibromomethane	Not detected	ug/kg	3,000	SW8260B/5035	05/09/13 13:18	JGH	130	Y
cis-1,3-Dichloropropene	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	57	Y
Toluene	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	100	Y
trans-1,3-Dichloropropene	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	69	Y
1,1,2-Trichloroethane	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	200	Y
Tetrachloroethene	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	110	Y

Y-Elevated reporting limit due to high target concentration
B-Compound also found in associated method blank J-Estimated value less than reporting limit, but greater than MDL

Analytical Laboratory Report

Lab Sample ID: S56254.06 (continued)
Sample Tag: SB-122 (04/30/2013) (15-16)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	180	Y
Dibromochloromethane	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	82	Y
1,2-Dibromoethane	Not detected	ug/kg	300	SW8260B/5035	05/09/13 13:18	JGH	130	YM
Chlorobenzene	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	110	Y
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	69	Y
Ethylbenzene	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	150	Y
p,m-Xylene	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	280	Y
o-Xylene	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	130	Y
Styrene	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	110	Y
Isopropylbenzene	Not detected	ug/kg	3,000	SW8260B/5035	05/09/13 13:18	JGH	130	Y
Bromoform	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	82	Y
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	180	Y
1,2,3-Trichloropropane	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	170	Y
n-Propylbenzene	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	150	Y
Bromobenzene	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	160	Y
1,3,5-Trimethylbenzene	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	160	Y
tert-Butylbenzene	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	130	Y
1,2,4-Trimethylbenzene	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	140	Y
sec-Butylbenzene	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	160	Y
p-Isopropyltoluene	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	170	Y
1,3-Dichlorobenzene	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	130	Y
1,4-Dichlorobenzene	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	120	Y
1,2-Dichlorobenzene	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	160	Y
1,2,3-Trimethylbenzene	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:18	JGH	25	Y
n-Butylbenzene	Not detected	ug/kg	600	SW8260B/5035	05/09/13 13:18	JGH	150	Y
Hexachloroethane	Not detected	ug/kg	4,000	SW8260B/5035	05/09/13 13:18	JGH	95	Y
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	3,000	SW8260B/5035	05/09/13 13:18	JGH	120	Y
1,2,4-Trichlorobenzene	Not detected	ug/kg	4,200	SW8260B/5035	05/09/13 13:18	JGH	150	Y
1,2,3-Trichlorobenzene	Not detected	ug/kg	4,200	SW8260B/5035	05/09/13 13:18	JGH	180	Y
Naphthalene	Not detected	ug/kg	4,200	SW8260B/5035	05/09/13 13:18	JGH	160	Y
2-Methylnaphthalene	Not detected	ug/kg	4,200	SW8260B/5035	05/09/13 13:18	JGH	180	Y

Y-Elevated reporting limit due to high target concentration
M-Result reported to MDL not RDL

Analytical Laboratory Report

Lab Sample ID: S56254.07
Sample Tag: SB-123 (04/30/2013) (5-6)
Collected Date/Time: 04/30/2013 16:33
Matrix: Soil
COC Reference: 82695

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.2	IR
1	4oz Glass	None	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Inorganics								
Total Solids	86	%	1	Std M 2540 B	05/02/13 11:00	WAR		
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	300	SW8260B/5035	05/08/13 16:07	WAT	16	
Acetone	Not detected	ug/kg	1,000	SW8260B/5035	05/08/13 16:07	WAT	67	
Methyl iodide	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	18	
Carbon disulfide	Not detected	ug/kg	400	SW8260B/5035	05/08/13 16:07	WAT	7.9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	SW8260B/5035	05/08/13 16:07	WAT	14	
Acrylonitrile	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	18	
2-Butanone (MEK)	Not detected	ug/kg	1,100	SW8260B/5035	05/08/13 16:07	WAT	18	
Dichlorodifluoromethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 16:07	WAT	27	
Chloromethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 16:07	WAT	41	
Vinyl chloride	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	17	
Bromomethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 16:07	WAT	11	
Chloroethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 16:07	WAT	8.6	
Trichlorofluoromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	11	
1,1-Dichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	13	
Methylene chloride	18	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	11	BJ
trans-1,2-Dichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	12	
1,1-Dichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	10.0	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	14	
Tetrahydrofuran	Not detected	ug/kg	1,000	SW8260B/5035	05/08/13 16:07	WAT	240	
Chloroform	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	12	
Bromochloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	15	
1,1,1-Trichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	7.1	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	SW8260B/5035	05/08/13 16:07	WAT	28	
2-Hexanone	Not detected	ug/kg	4,000	SW8260B/5035	05/08/13 16:07	WAT	16	
Carbon tetrachloride	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	8.6	
Benzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	14	
1,2-Dichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	13	
Trichloroethene	41	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	11	J
1,2-Dichloropropane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	14	
Bromodichloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	11	
Dibromomethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 16:07	WAT	15	
cis-1,3-Dichloropropene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	6.4	
Toluene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	11	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	7.9	
1,1,2-Trichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	23	
Tetrachloroethene	18	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	12	J
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	21	

B-Compound also found in associated method blank J-Estimated value less than reporting limit, but greater than MDL

Analytical Laboratory Report

Lab Sample ID: S56254.07 (continued)
Sample Tag: SB-123 (04/30/2013) (5-6)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Dibromochloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	9.3	
1,2-Dibromoethane	Not detected	ug/kg	30	SW8260B/5035	05/08/13 16:07	WAT	14	M
Chlorobenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	13	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	7.9	
Ethylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	16	
p,m-Xylene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	31	
o-Xylene	39	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	15	J
Styrene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	12	
Isopropylbenzene	65	ug/kg	400	SW8260B/5035	05/08/13 16:07	WAT	15	J
Bromoform	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	9.3	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	21	
1,2,3-Trichloropropane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	19	
n-Propylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	16	
Bromobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	18	
1,3,5-Trimethylbenzene	29	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	19	J
tert-Butylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	15	
1,2,4-Trimethylbenzene	37	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	16	J
sec-Butylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	18	
p-Isopropyltoluene	93	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	19	J
1,3-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	14	
1,4-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	14	
1,2-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	19	
1,2,3-Trimethylbenzene	42.1	ug/kg	100	SW8260B/5035	05/08/13 16:07	WAT	2.9	BJ
n-Butylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/08/13 16:07	WAT	17	
Hexachloroethane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 16:07	WAT	11	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	400	SW8260B/5035	05/08/13 16:07	WAT	14	
1,2,4-Trichlorobenzene	Not detected	ug/kg	470	SW8260B/5035	05/08/13 16:07	WAT	16	
1,2,3-Trichlorobenzene	Not detected	ug/kg	470	SW8260B/5035	05/08/13 16:07	WAT	20	
Naphthalene	210	ug/kg	470	SW8260B/5035	05/08/13 16:07	WAT	18	J
2-Methylnaphthalene	345	ug/kg	470	SW8260B/5035	05/08/13 16:07	WAT	20	J

M-Result reported to MDL not RDL
J-Estimated value less than reporting limit, but greater than MDL
B-Compound also found in associated method blank

Analytical Laboratory Report

Lab Sample ID: S56254.08
Sample Tag: DUP-1 (04/30/2013)
Collected Date/Time: 04/30/2013 00:01
Matrix: Soil
COC Reference: 82695

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.2	IR
1	4oz Glass	None	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Inorganics								
Total Solids	87	%	1	Std M 2540 B	05/02/13 11:00	WAR		
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	300	SW8260B/5035	05/09/13 13:00	JGH	15	
Acetone	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:00	JGH	61	
Methyl iodide	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	16	
Carbon disulfide	Not detected	ug/kg	300	SW8260B/5035	05/09/13 13:00	JGH	7.2	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	SW8260B/5035	05/09/13 13:00	JGH	12	
Acrylonitrile	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	16	
2-Butanone (MEK)	Not detected	ug/kg	980	SW8260B/5035	05/09/13 13:00	JGH	16	
Dichlorodifluoromethane	Not detected	ug/kg	300	SW8260B/5035	05/09/13 13:00	JGH	25	
Chloromethane	Not detected	ug/kg	300	SW8260B/5035	05/09/13 13:00	JGH	37	
Vinyl chloride	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	16	
Bromomethane	Not detected	ug/kg	300	SW8260B/5035	05/09/13 13:00	JGH	10	
Chloroethane	Not detected	ug/kg	300	SW8260B/5035	05/09/13 13:00	JGH	7.8	
Trichlorofluoromethane	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	10	
1,1-Dichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	12	
Methylene chloride	12	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	10	BJ
trans-1,2-Dichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	11	
1,1-Dichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	9.1	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	13	
Tetrahydrofuran	Not detected	ug/kg	1,000	SW8260B/5035	05/09/13 13:00	JGH	220	
Chloroform	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	11	
Bromochloromethane	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	14	
1,1,1-Trichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	6.5	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	SW8260B/5035	05/09/13 13:00	JGH	25	
2-Hexanone	Not detected	ug/kg	3,000	SW8260B/5035	05/09/13 13:00	JGH	14	
Carbon tetrachloride	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	7.8	
Benzene	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	12	
1,2-Dichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	12	
Trichloroethene	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	10	
1,2-Dichloropropane	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	12	
Bromodichloromethane	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	9.8	
Dibromomethane	Not detected	ug/kg	300	SW8260B/5035	05/09/13 13:00	JGH	14	
cis-1,3-Dichloropropene	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	5.9	
Toluene	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	10	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	7.2	
1,1,2-Trichloroethane	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	21	
Tetrachloroethene	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	11	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	19	

B-Compound also found in associated method blank J-Estimated value less than reporting limit, but greater than MDL

Analytical Laboratory Report

Lab Sample ID: S56254.08 (continued)
Sample Tag: DUP-1 (04/30/2013)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Dibromochloromethane	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	8.5	
1,2-Dibromoethane	Not detected	ug/kg	30	SW8260B/5035	05/09/13 13:00	JGH	13	M
Chlorobenzene	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	12	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	7.2	
Ethylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	15	
p,m-Xylene	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	29	
o-Xylene	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	14	
Styrene	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	11	
Isopropylbenzene	Not detected	ug/kg	300	SW8260B/5035	05/09/13 13:00	JGH	14	
Bromoform	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	8.5	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	19	
1,2,3-Trichloropropane	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	18	
n-Propylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	15	
Bromobenzene	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	16	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	17	
tert-Butylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	14	
1,2,4-Trimethylbenzene	22	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	14	J
sec-Butylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	16	
p-Isopropyltoluene	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	18	
1,3-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	13	
1,4-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	12	
1,2-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	17	
1,2,3-Trimethylbenzene	11.7	ug/kg	100	SW8260B/5035	05/09/13 13:00	JGH	2.6	J
n-Butylbenzene	Not detected	ug/kg	70	SW8260B/5035	05/09/13 13:00	JGH	16	
Hexachloroethane	Not detected	ug/kg	400	SW8260B/5035	05/09/13 13:00	JGH	9.8	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	SW8260B/5035	05/09/13 13:00	JGH	12	
1,2,4-Trichlorobenzene	Not detected	ug/kg	430	SW8260B/5035	05/09/13 13:00	JGH	15	
1,2,3-Trichlorobenzene	Not detected	ug/kg	430	SW8260B/5035	05/09/13 13:00	JGH	18	
Naphthalene	55	ug/kg	430	SW8260B/5035	05/09/13 13:00	JGH	16	J
2-Methylnaphthalene	39	ug/kg	430	SW8260B/5035	05/09/13 13:00	JGH	18	BJ

M-Result reported to MDL not RDL
J-Estimated value less than reporting limit, but greater than MDL
B-Compound also found in associated method blank

Analytical Laboratory Report

Lab Sample ID: S56254.09
Sample Tag: Field Blank (04/30/2013)
Collected Date/Time: 04/30/2013 00:01
Matrix: Methanol
COC Reference: 82695

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	SW8260B/5035	05/08/13 16:43	WAT	12	
Acetone	Not detected	ug/kg	1,000	SW8260B/5035	05/08/13 16:43	WAT	47	
Methyl iodide	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	13	
Carbon disulfide	Not detected	ug/kg	300	SW8260B/5035	05/08/13 16:43	WAT	5.5	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	SW8260B/5035	05/08/13 16:43	WAT	9.5	
Acrylonitrile	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	13	
2-Butanone (MEK)	Not detected	ug/kg	750	SW8260B/5035	05/08/13 16:43	WAT	13	
Dichlorodifluoromethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 16:43	WAT	19	
Chloromethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 16:43	WAT	29	
Vinyl chloride	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	12	
Bromomethane	Not detected	ug/kg	200	SW8260B/5035	05/08/13 16:43	WAT	8.0	
Chloroethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 16:43	WAT	6.0	
Trichlorofluoromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	8.0	
1,1-Dichloroethene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	9.0	
Methylene chloride	13.5	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	8.0	BJ
trans-1,2-Dichloroethene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	8.5	
1,1-Dichloroethane	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	7.0	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	10	
Tetrahydrofuran	Not detected	ug/kg	1,000	SW8260B/5035	05/08/13 16:43	WAT	170	
Chloroform	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	8.5	
Bromochloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	11	
1,1,1-Trichloroethane	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	5.0	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	SW8260B/5035	05/08/13 16:43	WAT	20	
2-Hexanone	Not detected	ug/kg	3,000	SW8260B/5035	05/08/13 16:43	WAT	11	
Carbon tetrachloride	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	6.0	
Benzene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	9.5	
1,2-Dichloroethane	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	9.0	
Trichloroethene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	8.0	
1,2-Dichloropropane	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	9.5	
Bromodichloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	7.5	
Dibromomethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 16:43	WAT	11	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	4.5	
Toluene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	8.0	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	5.5	
1,1,2-Trichloroethane	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	16	
Tetrachloroethene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	8.5	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	15	
Dibromochloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	6.5	
1,2-Dibromoethane	Not detected	ug/kg	20	SW8260B/5035	05/08/13 16:43	WAT	10	M
Chlorobenzene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	9.0	

B-Compound also found in associated method blank J-Estimated value less than reporting limit, but greater than MDL
M-Result reported to MDL not RDL

Analytical Laboratory Report

Lab Sample ID: S56254.09 (continued)
Sample Tag: Field Blank (04/30/2013)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	5.5	
Ethylbenzene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	12	
p,m-Xylene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	22	
o-Xylene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	11	
Styrene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	8.5	
Isopropylbenzene	Not detected	ug/kg	300	SW8260B/5035	05/08/13 16:43	WAT	11	
Bromoform	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	6.5	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	15	
1,2,3-Trichloropropane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	14	
n-Propylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	12	
Bromobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	13	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	13	
tert-Butylbenzene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	11	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	11	
sec-Butylbenzene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	13	
p-Isopropyltoluene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	14	
1,3-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	10	
1,4-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	9.5	
1,2-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	13	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 16:43	WAT	2.0	
n-Butylbenzene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 16:43	WAT	12	
Hexachloroethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 16:43	WAT	7.5	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 16:43	WAT	9.5	
1,2,4-Trichlorobenzene	Not detected	ug/kg	330	SW8260B/5035	05/08/13 16:43	WAT	12	
1,2,3-Trichlorobenzene	Not detected	ug/kg	330	SW8260B/5035	05/08/13 16:43	WAT	14	
Naphthalene	Not detected	ug/kg	330	SW8260B/5035	05/08/13 16:43	WAT	13	
2-Methylnaphthalene	Not detected	ug/kg	330	SW8260B/5035	05/08/13 16:43	WAT	14	

Analytical Laboratory Report

Lab Sample ID: S56254.10
Sample Tag: Trip Blank (04/30/2013)
Collected Date/Time: 04/30/2013 00:01
Matrix: Methanol
COC Reference: 82695

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	SW8260B/5035	05/08/13 17:01	WAT	12	
Acetone	Not detected	ug/kg	1,000	SW8260B/5035	05/08/13 17:01	WAT	47	
Methyl iodide	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	13	
Carbon disulfide	Not detected	ug/kg	300	SW8260B/5035	05/08/13 17:01	WAT	5.5	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	SW8260B/5035	05/08/13 17:01	WAT	9.5	
Acrylonitrile	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	13	
2-Butanone (MEK)	Not detected	ug/kg	750	SW8260B/5035	05/08/13 17:01	WAT	13	
Dichlorodifluoromethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 17:01	WAT	19	
Chloromethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 17:01	WAT	29	
Vinyl chloride	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	12	
Bromomethane	Not detected	ug/kg	200	SW8260B/5035	05/08/13 17:01	WAT	8.0	
Chloroethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 17:01	WAT	6.0	
Trichlorofluoromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	8.0	
1,1-Dichloroethene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	9.0	
Methylene chloride	11.5	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	8.0	BJ
trans-1,2-Dichloroethene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	8.5	
1,1-Dichloroethane	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	7.0	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	10	
Tetrahydrofuran	Not detected	ug/kg	1,000	SW8260B/5035	05/08/13 17:01	WAT	170	
Chloroform	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	8.5	
Bromochloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	11	
1,1,1-Trichloroethane	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	5.0	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	SW8260B/5035	05/08/13 17:01	WAT	20	
2-Hexanone	Not detected	ug/kg	3,000	SW8260B/5035	05/08/13 17:01	WAT	11	
Carbon tetrachloride	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	6.0	
Benzene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	9.5	
1,2-Dichloroethane	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	9.0	
Trichloroethene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	8.0	
1,2-Dichloropropane	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	9.5	
Bromodichloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	7.5	
Dibromomethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 17:01	WAT	11	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	4.5	
Toluene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	8.0	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	5.5	
1,1,2-Trichloroethane	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	16	
Tetrachloroethene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	8.5	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	15	
Dibromochloromethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	6.5	
1,2-Dibromoethane	Not detected	ug/kg	20	SW8260B/5035	05/08/13 17:01	WAT	10	M
Chlorobenzene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	9.0	

B-Compound also found in associated method blank J-Estimated value less than reporting limit, but greater than MDL
M-Result reported to MDL not RDL

Analytical Laboratory Report

Lab Sample ID: S56254.10 (continued)
Sample Tag: Trip Blank (04/30/2013)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	5.5	
Ethylbenzene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	12	
p,m-Xylene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	22	
o-Xylene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	11	
Styrene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	8.5	
Isopropylbenzene	Not detected	ug/kg	300	SW8260B/5035	05/08/13 17:01	WAT	11	
Bromoform	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	6.5	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	15	
1,2,3-Trichloropropane	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	14	
n-Propylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	12	
Bromobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	13	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	13	
tert-Butylbenzene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	11	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	11	
sec-Butylbenzene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	13	
p-Isopropyltoluene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	14	
1,3-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	10	
1,4-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	9.5	
1,2-Dichlorobenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	13	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	SW8260B/5035	05/08/13 17:01	WAT	2.0	
n-Butylbenzene	Not detected	ug/kg	50	SW8260B/5035	05/08/13 17:01	WAT	12	
Hexachloroethane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 17:01	WAT	7.5	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	SW8260B/5035	05/08/13 17:01	WAT	9.5	
1,2,4-Trichlorobenzene	Not detected	ug/kg	330	SW8260B/5035	05/08/13 17:01	WAT	12	
1,2,3-Trichlorobenzene	Not detected	ug/kg	330	SW8260B/5035	05/08/13 17:01	WAT	14	
Naphthalene	Not detected	ug/kg	330	SW8260B/5035	05/08/13 17:01	WAT	13	
2-Methylnaphthalene	Not detected	ug/kg	330	SW8260B/5035	05/08/13 17:01	WAT	14	

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

82695

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Mike Smith
COMPANY: Applied EcoSystems, Inc.
ADDRESS: G-4300 S. Saginaw
CITY: Burton STATE: MI ZIP CODE: 48529
PHONE NO.: 810.715.2525 FAX NO.: 810.715.2526 P.O. NO.: 11-4317-102
E-MAIL ADDRESS: ae_mds@yahoo.com QUOTE NO.:

INVOICE TO

CONTACT NAME: RACER ☐ SAME
COMPANY: ↳ 12990-11-01
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: 12990-11-01 / Former Building 9 - Delphi
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Josh Adams / [signature]

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☒ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED): VOCs

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOCs	Special Instructions
56254.01	4/30/13	13:47	SB-119 (04/30/2013)(10-11)	S	2	1					1		X	Task #2
.02		14:03	SB-119 (04/30/2013)(17-18)											
.03		14:51	SB-120 (04/30/2013)(8-9)											
.04		15:18	SB-121 (04/30/2013)(15-16)											
.05		15:26	SB-121 (04/30/2013)(23-24)											
.06		16:04	SB-122 (04/30/2013)(15-16)											
.07		16:33	SB-123 (04/30/2013)(5-6)											
.08		—	DUP-1 (04/30/2013)		1						1			
.09		—	Field Blank (04/30/2013)		1						1			
.10		—	Trip Blank (04/30/2013)		1						1			

RELINQUISHED BY: SIGNATURE/ORGANIZATION	[signature] / Applied EcoSystems, Inc. (Sampler)	DATE 5/1/13	TIME 8:41
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	Tabatha Faust	DATE 5/1/13	TIME 841

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 4.2

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 5.18.12

Analytical Laboratory Report

Revised Report

Report ID: S56255.01(02)
Generated on 05/21/2013
Replaces report S56255.01(01) generated on 05/10/2013

Report to

Attention: Mike Smith
Applied Ecosystems
G4300 S. Saginaw St.
Burton, MI 48529

Phone: 810-715-2525 FAX: 810-715-2526
Email: msmith@appliedecosystems.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
Tabitha Faust (tfaust@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S56255.01-S56255.04
Project: 12990-11-01/ Former Building 9-Delphi
Collected Date: 04/30/2013
Submitted Date/Time: 05/01/2013 08:41
Sampled by: Josh Adams
P.O. #: 11-4317-102

MDL's added to the report

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc..

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified.Full certification lists are available upon request.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Revised Report

Sample Summary (4 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S56255.01	MW-106SR	Groundwater	04/30/2013 13:04
S56255.02	DUP	Groundwater	04/30/2013 00:01
S56255.03	Field Blank	Groundwater	04/30/2013 00:01
S56255.04	Trip Blank	Groundwater	04/30/2013 00:01

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56255.01
Sample Tag: MW-106SR
Collected Date/Time: 04/30/2013 13:04
Matrix: Groundwater
COC Reference: 82694

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.2	IR
2	1L Amber	None	Yes	4.2	IR
1	125ml Plastic	HNO3	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	05/01/13 12:30	CCM		
Metal Digestion	Completed			3015A	05/10/13 10:00	PER		
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
PNA Extraction	Completed			3510C	05/07/13 21:45	EMR		
Metals								
Arsenic	0.002	mg/L	0.002	E200.8	05/10/13 16:03	PER	0.000052	
Barium	0.113	mg/L	0.005	E200.8	05/10/13 16:03	PER	0.00022	
Cadmium	Not detected	mg/L	0.0005	E200.8	05/10/13 16:03	PER	0.000067	
Chromium	Not detected	mg/L	0.005	E200.8	05/10/13 16:03	PER	0.00013	
Lead	Not detected	mg/L	0.003	E200.8	05/10/13 16:03	PER	0.000043	
Mercury	Not detected	mg/L	0.0002	E245.1	05/01/13 16:11	CCM	0.000030	
Selenium	Not detected	mg/L	0.005	E200.8	05/10/13 16:03	PER	0.00027	
Silver	0.0005	mg/L	0.0005	E200.8	05/10/13 16:03	PER	0.000018	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	05/08/13 12:31	PL	0.32	
Acenaphthylene	Not detected	ug/L	5	SW8270C	05/08/13 12:31	PL	0.29	
Anthracene	Not detected	ug/L	5	SW8270C	05/08/13 12:31	PL	0.30	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	05/08/13 12:31	PL	0.28	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	05/08/13 12:31	PL	0.27	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	05/08/13 12:31	PL	0.30	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	05/08/13 12:31	PL	0.30	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	05/08/13 12:31	PL	0.28	
Chrysene	Not detected	ug/L	1	SW8270C	05/08/13 12:31	PL	0.30	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	05/08/13 12:31	PL	0.32	
Fluoranthene	Not detected	ug/L	1	SW8270C	05/08/13 12:31	PL	0.32	
Fluorene	Not detected	ug/L	5	SW8270C	05/08/13 12:31	PL	0.31	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	05/08/13 12:31	PL	0.27	
Naphthalene	Not detected	ug/L	5	SW8270C	05/08/13 12:31	PL	0.27	
Phenanthrene	Not detected	ug/L	2	SW8270C	05/08/13 12:31	PL	0.30	
Pyrene	Not detected	ug/L	5	SW8270C	05/08/13 12:31	PL	0.29	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/08/13 12:31	PL	0.28	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/08/13 12:31	PL	0.31	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 21:31	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 21:31	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.24	

Lab Sample ID: S56255.01 (continued)
Sample Tag: MW-106SR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 21:31	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 21:31	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 21:31	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 21:31	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 21:31	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 21:31	JGH	0.20	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 21:31	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 21:31	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 21:31	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.15	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 21:31	JGH	1.2	
Chloroform	0.51	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.15	J
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 21:31	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 21:31	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 21:31	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 21:31	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 21:31	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 21:31	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.15	

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S56255.01 (continued)
Sample Tag: MW-106SR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 21:31	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:31	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 21:31	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 21:31	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 21:31	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 21:31	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 21:31	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 21:31	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56255.02
Sample Tag: DUP
Collected Date/Time: 04/30/2013 00:01
Matrix: Groundwater
COC Reference: 82694

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.2	IR
2	1L Amber	None	Yes	4.2	IR
1	125ml Plastic	HNO3	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	05/01/13 12:30	CCM		
Metal Digestion	Completed			3015A	05/10/13 10:00	PER		
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
PNA Extraction	Completed			3510C	05/07/13 21:45	EMR		
Metals								
Arsenic	0.002	mg/L	0.002	E200.8	05/10/13 16:05	PER	0.000052	
Barium	0.112	mg/L	0.005	E200.8	05/10/13 16:05	PER	0.00022	
Cadmium	Not detected	mg/L	0.0005	E200.8	05/10/13 16:05	PER	0.000067	
Chromium	Not detected	mg/L	0.005	E200.8	05/10/13 16:05	PER	0.00013	
Lead	Not detected	mg/L	0.003	E200.8	05/10/13 16:05	PER	0.000043	
Mercury	Not detected	mg/L	0.0002	E245.1	05/01/13 16:07	CCM	0.000030	
Selenium	Not detected	mg/L	0.005	E200.8	05/10/13 16:05	PER	0.00027	
Silver	Not detected	mg/L	0.0005	E200.8	05/10/13 16:05	PER	0.000018	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	05/08/13 12:53	PL	0.32	
Acenaphthylene	Not detected	ug/L	5	SW8270C	05/08/13 12:53	PL	0.29	
Anthracene	Not detected	ug/L	5	SW8270C	05/08/13 12:53	PL	0.30	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	05/08/13 12:53	PL	0.28	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	05/08/13 12:53	PL	0.27	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	05/08/13 12:53	PL	0.30	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	05/08/13 12:53	PL	0.30	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	05/08/13 12:53	PL	0.28	
Chrysene	Not detected	ug/L	1	SW8270C	05/08/13 12:53	PL	0.30	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	05/08/13 12:53	PL	0.32	
Fluoranthene	Not detected	ug/L	1	SW8270C	05/08/13 12:53	PL	0.32	
Fluorene	Not detected	ug/L	5	SW8270C	05/08/13 12:53	PL	0.31	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	05/08/13 12:53	PL	0.27	
Naphthalene	Not detected	ug/L	5	SW8270C	05/08/13 12:53	PL	0.27	
Phenanthrene	Not detected	ug/L	2	SW8270C	05/08/13 12:53	PL	0.30	
Pyrene	Not detected	ug/L	5	SW8270C	05/08/13 12:53	PL	0.29	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/08/13 12:53	PL	0.28	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	05/08/13 12:53	PL	0.31	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 21:51	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 21:51	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.24	

Lab Sample ID: S56255.02 (continued)
Sample Tag: DUP

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 21:51	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 21:51	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 21:51	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 21:51	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 21:51	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 21:51	JGH	0.20	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 21:51	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 21:51	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 21:51	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.15	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 21:51	JGH	1.2	
Chloroform	0.52	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.15	J
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 21:51	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 21:51	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.18	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.19	
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 21:51	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.26	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	05/06/13 21:51	JGH	0.20	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 21:51	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 21:51	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.15	

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S56255.02 (continued)
Sample Tag: DUP

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 21:51	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 21:51	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 21:51	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 21:51	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 21:51	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 21:51	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 21:51	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 21:51	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56255.03
Sample Tag: Field Blank
Collected Date/Time: 04/30/2013 00:01
Matrix: Groundwater
COC Reference: 82694

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 20:10	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 20:10	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.24	
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 20:10	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 20:10	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 20:10	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 20:10	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 20:10	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 20:10	JGH	0.20	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 20:10	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 20:10	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 20:10	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.15	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 20:10	JGH	1.2	
Chloroform	2	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 20:10	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 20:10	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.18	
Bromodichloromethane	0.95	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.19	J
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 20:10	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.26	
Dibromochloromethane	0.26	ug/L	5	SW8260B	05/06/13 20:10	JGH	0.20	J

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S56255.03 (continued)
Sample Tag: Field Blank

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 20:10	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 20:10	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 20:10	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:10	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 20:10	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 20:10	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 20:10	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 20:10	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 20:10	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 20:10	JGH	0.21	

Analytical Laboratory Report

Revised Report

Lab Sample ID: S56255.04
Sample Tag: Trip Blank
Collected Date/Time: 04/30/2013 00:01
Matrix: Groundwater
COC Reference: 82694

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
pH check for VOCs	<2	STD Units		N/A	05/07/13 11:20	WAT		
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	SW8260B	05/06/13 20:30	JGH	0.27	
Acetone	Not detected	ug/L	50	SW8260B	05/06/13 20:30	JGH	4.0	
Methyl iodide	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.24	
Carbon disulfide	Not detected	ug/L	5	SW8260B	05/06/13 20:30	JGH	0.13	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	05/06/13 20:30	JGH	0.25	
Acrylonitrile	Not detected	ug/L	2	SW8260B	05/06/13 20:30	JGH	0.38	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	05/06/13 20:30	JGH	3.3	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	05/06/13 20:30	JGH	0.57	
Chloromethane	Not detected	ug/L	5	SW8260B	05/06/13 20:30	JGH	0.20	
Vinyl chloride	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.24	
Bromomethane	Not detected	ug/L	5	SW8260B	05/06/13 20:30	JGH	0.18	
Chloroethane	Not detected	ug/L	5	SW8260B	05/06/13 20:30	JGH	0.21	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.28	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	05/06/13 20:30	JGH	0.16	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.14	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.15	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.21	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	05/06/13 20:30	JGH	1.2	
Chloroform	2	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.15	
Bromochloromethane	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.36	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.27	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	05/06/13 20:30	JGH	0.35	
2-Hexanone	Not detected	ug/L	50	SW8260B	05/06/13 20:30	JGH	0.19	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.19	
Benzene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.11	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.17	
Trichloroethene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.29	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.18	
Bromodichloromethane	0.93	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.19	J
Dibromomethane	Not detected	ug/L	5	SW8260B	05/06/13 20:30	JGH	0.45	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.17	
Toluene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.17	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.20	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.34	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.13	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.26	
Dibromochloromethane	0.26	ug/L	5	SW8260B	05/06/13 20:30	JGH	0.20	J

J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S56255.04 (continued)
Sample Tag: Trip Blank

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.12	
Chlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.16	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.22	
Ethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.10	
p,m-Xylene	Not detected	ug/L	2	SW8260B	05/06/13 20:30	JGH	0.42	
o-Xylene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.16	
Styrene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.13	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	05/06/13 20:30	JGH	0.12	
Bromoform	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.35	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.27	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.54	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.12	
Bromobenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.15	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.18	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.14	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.16	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.16	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	05/06/13 20:30	JGH	0.19	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.20	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.18	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.13	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.14	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	05/06/13 20:30	JGH	0.17	
Hexachloroethane	Not detected	ug/L	5	SW8260B	05/06/13 20:30	JGH	0.35	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	05/06/13 20:30	JGH	0.48	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 20:30	JGH	0.24	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	05/06/13 20:30	JGH	0.25	
Naphthalene	Not detected	ug/L	5	SW8260B	05/06/13 20:30	JGH	0.18	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	05/06/13 20:30	JGH	0.21	

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

82694

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Mike Smith
COMPANY: Applied EcoSystems, Inc.
ADDRESS: 4-4300 S. Saginaw
CITY: Burton | STATE: MI | ZIP CODE: 48529
PHONE NO.: 810.715.2525 | FAX NO.: 810.715.2526 | P.O. NO.: 11-4317-102
E-MAIL ADDRESS: ae_mds@yahoo.com | QUOTE NO.:

INVOICE TO

CONTACT NAME: RACER | ☐ SAME
COMPANY: ↳ 12990-11-01
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO.: | E-MAIL ADDRESS:

PROJECT NO./NAME: 12990-11-01 / Former Building 9-Delphi
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Josh Adams / [signature]

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☒ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☐ Other

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOCs	PNAs	8 RCRA Metals	Special Instructions
56255.01	4/30/13	13:04	MW-106SR	GW	6	2	3	1					X	X	X	Task #6
.02	4/30/13	—	DUP		6	2	3	1					X	X	X	
.03	4/30/13	—	Field Blank		3		3						X			
.04	4/30/13	—	Trip Blank		3		3						X			

RELINQUISHED BY: SIGNATURE/ORGANIZATION	[signature] / Applied EcoSystems, Inc. (Sampler)	DATE 5/1/13	TIME 8:41
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	Talanda Faust	DATE 5/1/13	TIME 8:41

SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS
SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS

NOTES: TEMP. ON ARRIVAL

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 5.18.12