SEMI-ANNUAL PROGRESS REPORT NUMBER 30

(Operating Period January 1 through June 30, 2010)

Prepared For:

Non-City Remedial Design/Remedial Action Settlors
Wayne Reclamation & Recycling, Inc., Wayne Waste Oil Site
Columbia City, Indiana

Prepared By:

MWH Americas, Inc.
35055 West Twelve Mile Road
Farmington Hills, Michigan

August 2010

TABLE OF CONTENTS

Section **Page**

1.0 INTRODUCTION 1

1.1 BACKGROUND 1

2.0 MONITORING, DATA VALIDATION, AND FIELD WORK 4

2.1 SITE-SPECIFIC PRELIMINARY REMEDIATION GOALS 4
2.2 MONITORING SUMMARY 5
2.3 DATA VALIDATION SUMMARY 7
2.4 FIELD WORK SUMMARY 7

3.0 SOIL VAPOR EXTRACTION SYSTEM 8

3.1 SYSTEM DESCRIPTION 8
3.2 MONITORING RESULTS 8
3.3 PROGRESS TOWARD REMEDIAL OBJECTIVES 9

4.0 GROUNDWATER EXTRACTION SYSTEM 10

4.1 SYSTEM DESCRIPTION 10
4.2 MONITORING RESULTS 10
4.3 PROGRESS TOWARD REMEDIAL OBJECTIVES 12

5.0 GROUNDWATER PRE-TREATMENT SYSTEM 15

5.1 SYSTEM DESCRIPTION 15
5.2 MONITORING RESULTS 15
5.3 PROGRESS TOWARD REMEDIAL OBJECTIVES 16

6.0 OFF-GAS TREATMENT SYSTEM 17

6.1 SYSTEM DESCRIPTION 17
6.2 MONITORING RESULTS 17
6.3 PROGRESS TOWARD REMEDIAL OBJECTIVES 18

7.0 INSTITUTIONAL CONTROLS 19

8.0 CONCLUSIONS AND RECOMMENDATIONS 21

TABLE OF CONTENTS (continued)

LIST OF TABLES

Table 1 Summary of Soil Vapor Extraction Air Flow Rates from the SE and AST Areas, January through June 2010

Table 2 Summary of Summa Canister Sampling for Soil Vapor Extraction Lines, April 2010

Table 3 Monitoring Well Analytical Results, April 2010

Table 4 Groundwater Treatment System Flow Summary

Table 5 Summary of Groundwater Elevations

Table 6 Recovery Well Analytical Results, October 2009

Table 7 Summary of Groundwater Treatment System Volatile Organic Compound Influent and Effluent Sampling

Table 8 Summary of Treatment System Air Sampling

Table 9 Summary of Air Dispersion Calculations

LIST OF FIGURES

Figure 1 Site Plan – Groundwater Extraction & Treatment System and Slurry Wall

Figure 2 Site Plan – Soil Vapor Extraction System

Figure 3 Site Plan – Air Sparging System

Figure 4 Summary of Groundwater Treatment and SVE Systems Combined Air System Effluent Data

Figure 5 Cumulative and Sustained Groundwater Recovery

Figure 6 Summary of Groundwater Treatment System Influent Data

Figure 7-1 Groundwater Contours – January 2010

Figure 7-2 Groundwater Contours – February 2010

Figure 7-3 Groundwater Contours – March 2010

Figure 7-4 Groundwater Contours – April 2010

Figure 7-5 Analytical Results Summary – April 2010

Figure 7-6 Groundwater Contours – May 2010

Figure 7-7 Groundwater Contours – June 2010

Figure 8 Cumulative Volatile Organic Compounds Removed from Site – Soil and Groundwater Remediation Systems

Figure 9 Summary of Site Volatile Organic Compound Removal Rates – Soil and Groundwater Remediation Systems

TABLE OF CONTENTS (continued)

LIST OF APPENDICES

Appendix A Landfill Sampling Data, April 2010 Sampling Event

Appendix B Data Validation Report

Appendix C Summary of Major Field Activities, January through June 2010

Appendix D Historical Monitoring Data

- Table D-1 Summary of Summa Canister Sampling for Soil Vapor Extraction Lines
- Table D-2 Monitoring Well Analytical Results
- Table D-3 Columbia City Municipal Water Supply Well Results – Volatile Organic Compounds and Polychlorinated Biphenyls
- Table D-4 Columbia City Municipal Water Supply Well Results – Metals and Inorganics
- Table D-5 Recovery Well Analytical Results
- Table D-6 Volatile Organic Compound Removal Rates – Soil Vapor Extraction and Air Stripper Systems
- Table D-7 Summary of Groundwater Treatment System Effluent Sampling – Metals, Inorganics, and Polychlorinated Biphenyls
- Table D-8 Summary of Treatment System Air Sampling
- Table D-9 Summary of Air Dispersion Calculations

Appendix E Summary of Air Dispersion Modeling and Cumulative Cancer Risk Calculations

ACRONYMS AND ABBREVIATIONS

AST	Aboveground Storage Tank
B&N	Burgess & Niple, Incorporated
CLP	Contract Laboratory Program
DCE	dichloroethene
gpd	gallons per day
gpm	gallons per minute
HDPE	high-density polyethylene
IDEM	Indiana Department of Environmental Management
InSite	InSite, Incorporated
ISC-LT	Industrial Source Complex – Long-Term
MWH	MWH Americas, Inc.
NFG	National Functional Guidelines
O&M	operation and maintenance
OM&M	operation, maintenance, and monitoring
Pace	Pace Analytical Services, Inc.
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
POTW	publicly owned treatment works
ppb	parts per billion
PRG	Preliminary Remediation Goal
QAPjP	Quality Assurance Project Plan
QC	quality control
RD/RA	Remedial Design/Remedial Action
scfm	standard cubic feet per minute
SE	Southeast
SVE	soil vapor extraction
U.S. EPA	United States Environmental Protection Agency
TCE	trichloroethene
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
v/v	volume per volume basis
VOC	volatile organic compound
VC	vinyl chloride
Weston	Roy F. Weston
WRR	Wayne Reclamation & Recycling

1.0 INTRODUCTION

This document is submitted on behalf of the Non-City Remedial Design/Remedial Action (RD/RA) Settlors. It is intended to summarize operations of the remediation system constructed by the Non-City RD/RA Settlors at the Wayne Reclamation & Recycling (WRR) Site (also known as the Wayne Waste Oil Site) located in Columbia City, Indiana for the reporting period of January 1 through June 30, 2010. Included in this document is a description of the system operation, assessment, and testing activities that have occurred during the reporting period. This document is organized as follows:

- *Section 2 Monitoring, Data Validation, and Field Work*
- *Section 3 Soil Vapor Extraction System*
- *Section 4 Groundwater Extraction System*
- *Section 5 Groundwater Pre-Treatment System*
- *Section 6 Off-Gas Treatment System*
- *Section 7 Institutional Controls*
- *Section 8 Conclusions and Recommendations*

This document is intended to supplement information presented in previous Semi-Annual Progress Reports.

1.1 BACKGROUND

Construction of the remediation system at the WRR Site took place between 1994 and January 1995. The remediation system was constructed to remove volatile organic compounds (VOCs) from soil and groundwater. The system includes:

- A 150-gallons-per-minute (gpm) design capacity groundwater extraction system, including a 1,600-foot-long, soil-bentonite cut-off wall (i.e., slurry wall).

- A groundwater treatment system consisting of an influent storage tank, an air stripping tower, and a 5,800-foot-long force main that delivers treated groundwater to the Columbia City publicly owned treatment works (POTW).
- A 2,400-standard-cubic-feet-per-minute (scfm) soil vapor extraction (SVE) system and a 100-scfm air sparging system (nominal rates). The air sparge system has met its design goals, and operation of the deep and shallow injection wells was suspended in September 2001 and November 2006, respectively.
- A 3,200-scfm off-gas treatment system, which was removed from service effective June 24, 1999.
- In addition to the remediation system, institutional controls have been designated to restrict property use.

The layouts for the three primary components of the remediation system, including the groundwater recovery, SVE, and air sparging system, are indicated on ***Figures 1***, ***2***, and ***3***, respectively.

Additional information on the remediation system can be found in the following reports:

- *Final Design Evaluation* (November 19, 1993)
- *Interim Remedial Action Report* (August 1995)
- *Final Operation, Maintenance, and Monitoring (OM&M) Plan* (September 1995) and *Addendum* (July 1999)
- *Final Operations and Maintenance Quality Assurance Project Plan (O&M QAPjP)* (September 1995) and *Addendum* (July 1999)
- *Technical Memorandum Number One* (February 12, 1996)
- *Technical Memorandum Number Two* (November 1996)
- *Hydrological Assessment Letter Report, January through July 2003* (August 2003)

- *Hydrological Assessment Letter Report, July through December 2003* (January 2004)
- *Semi-Annual Progress Report Numbers 3 through 29* (August 1997 through February 2010)

2.0 MONITORING, DATA VALIDATION, AND FIELD WORK

Summaries of the monitoring activities conducted, data validation report, and significant field events and activities are presented in the following sections.

2.1 SITE-SPECIFIC PRELIMINARY REMEDIATION GOALS

Development of the groundwater and soil site-specific Preliminary Remediation Goals (PRGs) is detailed in Appendix C of the *Final OM&M Plan* (Montgomery Watson, September 1995) and *Final O&M QAPjP* (Montgomery Watson, September 1995). Soil PRGs are specified based on the thickness of soil column and area of the Site. Soil compliance monitoring will begin when it is determined that an area likely meets the soil site-specific PRGs, as indicated by groundwater detections less than the groundwater site-specific PRGs. The five constituents listed in the following table were noted in the *Final OM&M Plan* to be the principal constituents of concern necessitating groundwater and soil remediation at the WRR Site. The table also lists the most conservative groundwater PRGs and soil PRGs for the entire soil column for the principal constituents of concern.

Principal Constituent of Concern	**Groundwater PRG (µg/L)**	**Soil PRG for Entire Soil Column [(1)] (µg/kg)**			
		SE Area - North	SE Area - South	AST Area	MW-7S
Vinyl Chloride (VC)	0.0283	37.1	25.2	2.6	1,987.0
Tetrachloroethene (PCE)	1.43	67.1	1,811.6	44.2	4,796.0
Trichloroethene (TCE)	2.54	19.7	804.6	17.6	664
cis-1,2-Dichloroethene (cis-1,2-DCE)	70	--	--	--	--
trans-1,2-Dichloroethene (trans-1,2-DCE)	100	--	--	--	--
1,2-Dichloroethene, Total (1,2-DCE)	--	186.3	8,578.4	184.7	4,219.0

Notes: µg/L = Micrograms per liter.
µg/kg = Micrograms per kilogram.
SE = Southeast.
AST = Aboveground Storage Tank.
-- = No PRG developed for this constituent.
[(1)] = PRGs were also developed for a one-foot soil column. The appropriate PRG should be used.

2.2 MONITORING SUMMARY

The primary monitoring activities conducted for the WRR Site remediation system include:

- The SVE system effluent samples are collected and analyzed for VOCs on a monthly basis. Laboratory analytical results of the SVE effluent sampling are used in air dispersion calculations.
- Samples of both the influent and effluent from the groundwater treatment system are collected monthly and analyzed for VOCs. The effluent samples are also analyzed for total metals, inorganics, and polychlorinated biphenyls (PCBs) during the expanded sampling event in October of each year. Laboratory analytical results from the groundwater treatment system sampling are used to monitor groundwater treatment system efficiency, and to provide effluent water quality information to the Columbia City POTW.
- Groundwater samples from recovery wells are collected and analyzed for VOCs on a periodic basis. Recovery wells RW-1, RW-3, RW-4, and RW-5 are sampled annually. Laboratory analytical results from recovery well sampling are used to monitor changes in aquifer groundwater concentrations and to assess VOC mass removal rates from the aquifer.
- Semi-annual groundwater sampling and analyses are conducted using the WRR Site monitoring well network. Typically, the semi-annual sampling is conducted in April and October of each year. Samples are analyzed for VOCs and metals. Laboratory analytical results from groundwater sampling are used to assess effectiveness of the remediation system operations and evaluate the progress toward attainment of remedial goals. During April 2010, samples were

collected from five WRR Site monitoring wells for analysis of VOCs and metals.

- Semi-annual groundwater elevation measurements are collected from 28 of the WRR Site's groundwater monitoring wells and piezometers, not including the landfill wells monitored by Columbia City and the ten WRR Site recovery wells. Typically, the semi-annual groundwater elevations are collected in April and October of each year. These data are used to evaluate groundwater flow patterns across the site. During April 2010, groundwater elevation readings were collected from the designated monitoring wells and piezometers.
- Monthly groundwater elevation measurements are collected from eight groundwater monitoring wells to evaluate the zone of hydraulic influence created by the groundwater remediation system and to assess horizontal and vertical hydraulic gradients within the SE Area.
- Annually, specific Columbia City municipal drinking water wells (Municipal Well Numbers 7 and 8 [referred to as PW-7 and PW-8, respectively]) are sampled during the expanded October sampling event; therefore, these wells were not sampled during this reporting period.
- During this reporting period, groundwater wells located on or adjacent to the landfill (GM-1 through GM-4) were sampled by Burgess & Niple, Incorporated (B&N) of Columbus, Ohio. Their report (***Appendix A***) provides data for comparison to groundwater monitoring results from closely associated wells on the WRR Site.

The results from the above monitoring activities are discussed in the following sections of this report.

2.3 DATA VALIDATION SUMMARY

Groundwater, air, and associated quality control (QC) samples were collected from the WRR Site between January and June 2010. The water samples were analyzed by Pace Analytical Services, Inc. (Pace) of Indianapolis, Indiana for one or more of the following parameters: VOCs by U.S. EPA Method SW-846 8260B; dissolved metals (arsenic, barium, cadmium, chromium, lead, nickel, and zinc) by U.S. EPA Method SW-846 6010B; and total cyanide by U.S. EPA Method 335.3. Additionally, air samples were analyzed for VOCs by Pace of Minneapolis, Minnesota by U.S. EPA Method TO-14.

Laboratory analytical results were evaluated in accordance with the U.S. EPA Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Organic Data Review (October 1999), U.S. EPA CLP NFG for Inorganic Data Review (October 2004), and the analytical methods. The analytical data were reviewed and qualified based on the results of the data evaluation parameters and/or the QC sample results provided by the laboratory. The complete data validation report is included as ***Appendix B***. The analytical data for those compounds that did not meet the QC criteria were flagged by a "J" (estimated) or "U" (non-detect). Based on the results of this data validation, the data are considered usable as qualified.

2.4 FIELD WORK SUMMARY

The major field activities conducted at the WRR Site during the reporting period are summarized in ***Appendix C***. Activities during this reporting period included various equipment repairs, calibration, and maintenance tasks.

3.0 SOIL VAPOR EXTRACTION SYSTEM

3.1 SYSTEM DESCRIPTION

The SVE system was constructed to remove VOCs from the vadose (unsaturated) zone. The horizontal configuration of the SVE well system is presented on ***Figure 2***. The system consists of 41 SVE wells in the SE Area and 18 SVE wells in the AST Area. Operation of the SVE wells in the SE Area was decreased in November 2006 and suspended in April 2007. SVE wells in the AST Area are connected via underground piping to one of two branch lines (Branches G and H; ***Figure 2***) that convey extracted vapors to the treatment building. Operation of branch line H was suspended in October 2002. Only branch line G is presently operated.

3.2 MONITORING RESULTS

Results of the SVE system monitoring conducted during this reporting period indicate:

- During the period of January 1 through June 30, 2010, the SVE system was operational for approximately 99.8 percent of the time (i.e., percent of total hours available). Downtime events were related to standard, regularly scheduled OM&M activities, maintenance and repairs, and a temporary shutdown at the request of the POTW.
- Air flow rates were collected each month from January through June 2010. The flow rate in Branch Line G averaged approximately 1,175 scfm while operating. Flow rate measurements collected during this reporting period are summarized in ***Table 1***.
- Laboratory analytical data from the Summa canister sample collected in April 2010 are summarized in ***Table 2***; historical data from Summa canister samples are summarized in ***Appendix D, Table D-1***.

3.3 PROGRESS TOWARD REMEDIAL OBJECTIVES

Based on laboratory analytical results from SVE system effluent air samples collected during the reporting period, it is estimated that approximately 12,092 pounds of VOCs have been removed via the SVE system from vadose zone soils to date, with 5.8 pounds removed from January through June 2010. The main VOC constituents removed in the AST Area are TCE and cis-1,2-DCE. For this reporting period, the removal rate for the SVE system was approximately 0.03 pounds of total VOCs per day. The trend in VOC concentrations for the combined effluent air of the SVE, air sparge, and groundwater treatment systems from 1995 through the present is relatively stable, as shown in ***Figure 4***.

Semi-annual groundwater monitoring is conducted in April and October of each year. During April 2010, samples were collected from five WRR Site monitoring wells and analyzed for VOCs and metals. Groundwater monitoring results for samples collected in April 2010 are presented in ***Table 3***; historical groundwater monitoring data are presented in ***Appendix D, Table D-2***. Groundwater monitoring data are discussed in Section 4.3. As discussed in Section 4.3 constituents in groundwater are still present at concentrations greater than site-specific PRGs, and the SVE system typically removes VOCs at less than 0.5 percent of the initial removal rates. This trend has been stable for approximately 13 years (***Figure 4).***

4.0 GROUNDWATER EXTRACTION SYSTEM

4.1 SYSTEM DESCRIPTION

The groundwater extraction system was constructed to capture and control groundwater impacted with VOCs. The groundwater extraction system consists of ten groundwater recovery wells installed in three areas of the WRR Site as follows: three recovery wells in the AST Area (RW-1 through RW-3), one recovery well in the monitoring well MW-7S area (RW-4), and six recovery wells in the SE Area (RW-5 through RW-10) (***Figure 1***). The extraction system also uses a soil-bentonite cut-off wall (i.e., a slurry wall), constructed to reduce the pumping rate necessary to control groundwater flow in the SE Area. The slurry wall encircles the SE Area near the Blue River. Extracted groundwater is pumped to the on-site treatment building through underground HDPE piping.

4.2 MONITORING RESULTS

Results of the groundwater extraction system monitoring conducted during this reporting period indicate:

- During the period of January through June 2010, the groundwater extraction system was operational for approximately 99.8 percent of the time (i.e., percent of total hours available). Primary downtime events were related to routine cleaning of recovery pumps, routine and annual plant maintenance, cleaning and repair of the pumps, meters, and controls, and a temporary shutdown due to inclement weather.
- A summary of system flow rates during this reporting period is included in ***Table 4***. The average sustained groundwater recovery rate during the reporting period was approximately 59 gpm. During this reporting period, a total of 15,458,987 gallons of groundwater were recovered and treated. The largest total monthly flow was reported at 3,445,056 gallons for the month of May. The highest average daily

recovery rate during the reporting period was 111,100 gallons per day (gpd), which was reported during May. ***Figure 5*** is a summary of the cumulative and average daily groundwater recovery rates from October 1995 through June 2010. As of June 30, 2010, a cumulative total of 403,402,507 gallons of groundwater had been recovered, treated, and discharged to the Columbia City POTW.

- On-going, routine operation and maintenance activities are focusing on recovery well pump cleaning and/or repair, and recovery pipe cleaning as necessary to optimize groundwater extraction system performance.
- Water level elevation data collected during the reporting period are used to evaluate the groundwater table drawdown. These data are provided in ***Table 5***. Groundwater contour maps for January through June 2010 are presented as ***Figures 7-1*** through ***7-4***, ***7-6***, and ***7-7***. Because groundwater elevations were measured in all wells in April, ***Figure 7-4*** illustrates a representation of the groundwater elevations observed across the entire WRR Site. The influence of the recovery wells in the southeast corner is apparent, and the general groundwater flow direction across the property is southeast. The April 2010 groundwater elevations of the landfill wells in the B&N report (see ***Table 2*** of the B&N report, included as ***Appendix A***) were consistent with the elevations observed on the WRR Site.
- ***Figure 7-5*** summarizes recent groundwater sampling analytical results from monitoring wells for April 2010.
- Columbia City municipal drinking water wells located to the north of the WRR Site are sampled annually in the fall each year. Historical laboratory analytical results from these wells are presented in ***Appendix D, Tables D-3*** and ***D-4***. These wells were not sampled

during the April 2010 event. Constituents associated with the WRR Site have never been detected in the samples from the municipal wells.

- Groundwater from the recovery wells is sampled and analyzed for VOCs on an annual basis. The most recent sample results for these recovery wells (October 2009) are provided in ***Table 6***; historical data from the recovery well samples are provided in ***Appendix D, Table D-5***.

4.3 PROGRESS TOWARD REMEDIAL OBJECTIVES

The primary remedial objective of the groundwater extraction system is to remove dissolved-phase constituents from the upper aquifer on site, thereby restricting the potential off-site migration of dissolved-phase constituents to the Blue River or Columbia City municipal well field. Mass removal rates from the groundwater extraction system ranged from approximately 1.0 to 1.89 pounds of total VOCs removed per day during this reporting period.

Groundwater elevation data indicate that the slurry wall/groundwater extraction system is effectively maintaining an inward horizontal gradient in the SE Area. Monthly water elevations collected during the reporting period indicate the hydraulic head levels were lower inside the slurry wall when compared to the head levels outside the wall. For example, during the April 2010 event, the elevation within the confines of the slurry wall were 2.9 feet lower than water elevation immediately outside the slurry wall (based on monitoring wells MW-11S and MW-13S, ***Table 5***).

OM&M activities, including on-going recovery pump cleaning, are conducted to increase groundwater system recovery rates to maintain an upward gradient in the SE Area. Based on the historical observations of groundwater extraction system performance, maintenance of the groundwater extraction system is conducted frequently (i.e., approximately once per quarter) in order to maintain hydraulic control. Review of the groundwater elevation data indicates that an upward gradient was maintained in the SE

Area during this reporting period (based on elevation data from MW-83AD and MW-83AS).

The monitoring wells currently included in the semi-annual or annual sampling program, per the requirements of the *Final OM&M Plan*, are MW-1D, MW-3S, MW-4S, MW-7S, MW-9S, MW-10S, MW-11S, MW-14S, MW-15S, MW-16S, MW-83AS, MW-83AD, and MW-83B. Monitoring wells MW-13S and MW-83DS were added to the annual OM&M monitoring program per the July 11, 2002 Site Progress Meeting. During this reporting period, groundwater samples were collected from the following monitoring wells in accordance with the *Sampling and Analysis Plan for Environmental Monitoring - Revision 1* (July 1999): MW-4S, MW-9S, MW-10S, MW-14S, and MW-83AS.

A summary of monitoring well VOC and metals analytical data collected during this reporting period is included in ***Table 3***; historical data are provided in ***Appendix D, Table D-2***. Recent monitoring well VOC analytical results from April 2010 are also included in ***Figure 7-5***. The most recent recovery well VOCs analytical data (October 2009) are included in ***Table 6***; historical data are provided in ***Appendix D, Table D-5***. Copies of laboratory analytical reports are available upon request. The sample results for each area are summarized below:

<u>SE Area</u>

- MW-10S – cis-1,2-DCE (254 µg/L) and VC (17.5 µg/L) concentrations exceeded PRGs (70 µg/L and 0.0283 µg/L, respectively). The concentrations of these two compounds were higher than the results from the two previous sampling events (2008 and 2009), but were generally consistent with the results obtained from 2005 through 2007. The current results are at least one order of magnitude less than results obtained during the 1990s and early 2000s.
- MW-83AS – cis-1,2-DCE (251 µg/L) and VC (280 µg/L) concentrations exceeded PRGs (70 µg/L and 0.0283 µg/L,

respectively). The VOC concentrations were similar to the concentrations observed during the previous sampling events.

AST Area

- MW-9S – cis-1,2-DCE (13,200 µg/L), trans-1,2-DCE (105 µg/L), TCE (989 ug/L), and VC (218 µg/L) were detected in the sample collected from MW-9S. The results for these compounds exceeded their respective PRGs (70 µg/L, 100 µg/L, 2.54 µg/L, and 0.0283 µg/L). The results obtained during this sampling event are generally consistent with historical results for this well.
- MW-14S – 1,1-Dichloroethane (1,1-DCA, 24 µg/L) and cis-1,2-DCE (2 µg/L) were detected in the sample collected from MW-14S. These results did not exceed the PRGs. The results obtained during this sampling event are generally consistent with the historical results for this well.

Recovery Well RW-4 Area:

- MW-4S – VOCs were not detected in MW-4S during the April 2010 sampling event. With the exception of the VC results, these results are consistent with the results obtained during previous sampling events. VC has historically been detected in the samples collected from MW-4S.

5.0 GROUNDWATER PRE-TREATMENT SYSTEM

5.1 SYSTEM DESCRIPTION

The groundwater pre-treatment system is designed to remove VOCs from extracted groundwater, prior to discharge to the Columbia City POTW. Groundwater extracted from the WRR Site's ten groundwater recovery wells is initially pumped to an influent storage tank for solids settling and equalization. The equalized water is transferred through a bag filter to the top of an air stripping tower via electric transfer pumps. Water cascades downward through the tower packing, while air flows upward from near the tower base, inducing liquid-to-gas mass transfer of VOCs from the groundwater. The treated water drains from the tower into an effluent sump, which is pumped via a dedicated force main to the Columbia City POTW.

5.2 MONITORING RESULTS

During the period of January through June 2010, the groundwater pretreatment system was operational 99.8 percent of the time (i.e., percent of total hours of available). Primary downtime events were related to on-going routine cleaning activities and maintenance, non-routine maintenance and repairs.

Monthly groundwater treatment system sampling consists of influent and effluent sampling for VOCs; detailed VOC results for this monitoring period are provided in ***Table 7*** and historical results are summarized in ***Figure 6***. The air stripping tower has consistently removed VOCs prior to discharge to the Columbia City POTW. As shown on ***Figure 6***, total VOC concentrations in air stripping tower influent have fluctuated from as low as 273 µg/L to as high as 3,274 µg/L (in September 2003 and February 1996, respectively), since commencement of treatment system operations. Influent groundwater VOC concentrations can vary over time based on a variety of factors including recovery well cycling, rainfall events, and water levels. The influent groundwater total VOC concentrations during this reporting period began at 1,953 µg/L

in January 2010 and ended at 2,475 µg/L in June 2010 (shown in ***Table 7***). The average total VOC concentration removed during the reporting period was approximately 1,982 µg/L. For this reporting period, the average groundwater constituent mass removal rate was 1.44 pounds of total VOCs per day, based on an average flow rate of 85,300 gpd and an average total VOC concentration removed of 1982 µg/L.

Average groundwater constituent mass removal rates since the commencement of remediation system operations have ranged from approximately 0.13 to 13.2 pounds per day of total VOCs. Historical mass removal rates for specific VOCs from April 1998 through April 2010 are provided in ***Appendix D***, ***Table D-6***. The total mass removed during the period of January through June 2010 and attributable to the groundwater pre-treatment system is approximately 259 pounds; the total mass to date is an estimated 4,371 pounds.

Groundwater treatment system effluent samples are collected during the October sampling events and analyzed for non-VOC parameters. These historical results are provided in ***Appendix D, Table D-7***.

5.3 PROGRESS TOWARD REMEDIAL OBJECTIVES

Laboratory analytical results for the groundwater treatment system monthly effluent sampling for this monitoring period, conducted in accordance with the discharge agreement (i.e., the agreement in place prior to February 1, 1998) with the Columbia City POTW, are included in ***Table 7***. Analytical results (from the current monitoring period and historically) have indicated that low levels of both VOCs and inorganic compounds are present in the treated groundwater discharged to the Columbia City POTW.

6.0 OFF-GAS TREATMENT SYSTEM

6.1 SYSTEM DESCRIPTION

The off-gas treatment system was operated until June 1999 to remove VOCs from the off-gases of the air stripping tower and the SVE system prior to discharge to the atmosphere. On June 24, 1999, air treatment was discontinued; however, monthly air sampling continues to be conducted on the effluent air stream as a means of monitoring potential risk levels associated with the untreated air stream.

Currently, upon entering the treatment building, the combined air stream of the air stripping tower and the SVE system is drawn through an air filter and moisture separator by two blowers connected in parallel. After exiting the blowers, the air stream passes through a heat exchanger prior to discharge to the atmosphere.

6.2 MONITORING RESULTS

The SVE system effluent (equivalent to the former air treatment system influent) samples are collected and analyzed for VOCs on a monthly basis. ***Table 8*** presents the monthly effluent sample results collected during this reporting period; historical results are provided in ***Appendix D, Table D-8***.

Monitoring conducted to date, including the monthly SVE system effluent sampling (which includes air stripping system off-gases), indicates the following:

- Calculations were conducted using the VOC concentrations of off-gas vapor concentrations to assess hypothetical risk levels; a more detailed discussion of the risk calculations is provided in Section 6.3. Results of the effluent sample analyses indicate hypothetical risk levels did not exceed the cumulative risk action level of $1x10^{-6}$ (representing an increased cancer risk of one in one million exposed). The results for

this reporting period are presented in ***Table 9***. Current and historical air risk calculations are provided in ***Appendix D, Table D-9.***

6.3 PROGRESS TOWARD REMEDIAL OBJECTIVES

The primary objective of the on-going off-gas air monitoring is to ensure that the cumulative life-time cancer risk at the WRR Site boundary remains less than the cumulative risk action level of $1x10^{-6}$. To verify compliance with this objective, air dispersion calculations were completed to estimate the maximum concentrations at receptor locations outside the site boundary. The Industrial Source Complex - Long-Term (ISC-LT) model was used for the purpose of modeling the dispersion of the effluent from the soil remediation system (***Appendix E***). The maximum concentrations determined by the air modeling study were multiplied by unit risk factors to estimate the excess carcinogenic risk posed by the hypothetical emissions through the inhalation route. The unit risk factors used in this study were developed from toxicity values included in U.S. EPA's *Integrated Risk Information System*, U.S. EPA's *Health Assessment Summary Tables* (Annual FY-1995), and information provided by the U.S. EPA Environmental Criteria Assessment Office. The unit risk factors conservatively assume a chronic exposure to the chemicals for 24 hours a day, 365 days a year, for a 70-year lifetime. In this Progress Report, references to cancer risk and cancer risk estimates refer to the estimated potential risks as indicated by the use of ISC-LT air dispersion modeling and are not meant to represent or suggest actual risks.

Air dispersion calculations using the off-gas air data indicate that the $1x10^{-6}$ action level was not exceeded during this reporting period. Though active air treatment was discontinued on June 24, 1999, monthly effluent air sampling and risk calculations will continue. Air treatment will be reactivated should the results from two consecutive monthly air samples indicate cumulative risks in excess of $1x10^{-6}$.

7.0 INSTITUTIONAL CONTROLS

The following institutional controls (ICs) were specified in the RD/RA Consent Decree (CD) to supplement the remedial actions.

1. There shall be no interference of any sort, by any person, with construction, operation, maintenance, monitoring, and efficacy of all components and structures and improvements resulting from or relating to the response actions implemented pursuant to the RD/RA CD.

2. There shall be no operations on the facility which extract, consume, or otherwise use the groundwater underlying the facility property or adjoining property except as provided for in the course of carrying out the terms of the RD/RA CD without prior written U.S. EPA approval and notification to IDEM.

3. There shall be no agricultural, recreational, residential, commercial, or industrial use of the facility, including but not limited to any excavation, grading or other activity involving movement of soils at the facility, and any construction or placement of any residence, buildings, or structures - fixtures or otherwise - other than for the purpose of implementing, monitoring, and maintaining the response action required by the RD/RA CD without prior written U.S. EPA approval and notification to IDEM.

4. There shall be no construction, installation, or use of any buildings, wells, pipes, roads, ditches or any other structures - fixtures or otherwise - on the facility property that may interfere with the construction, physical integrity, operation and maintenance, or efficacy of the work undertaken pursuant to the RD/RA CD, including without limitation the facility's: security fence; municipal landfill cap; soil cover(s) related to PAH impacted soil; groundwater extraction, treatment, and discharge system; soil vapor extraction system; air, groundwater

and surface water monitoring systems; and soil immobilization or washing systems and locations, unless such construction, installation or use is approved in advance, in writing, by U.S. EPA and IDEM has been notified.

During this reporting period, onsite personnel have not observed or performed activities that would be considered inconsistent with these ICs.

8.0 CONCLUSIONS AND RECOMMENDATIONS

Overall remediation system mass removal calculations indicate that, since inception of treatment system operations, approximately 16,463 pounds of total VOCs have been removed by the SVE and groundwater treatment systems (see ***Figure 8***). Of this, approximately 73 percent (or 12,092 pounds) is attributed to operation of the SVE and air sparging system, and approximately 27 percent (or 4,371 pounds) is attributed to the groundwater extraction system. Currently, most of the mass removal is being accomplished via the groundwater extraction system.

As shown on ***Figure 9*** (which illustrates VOC removal rates in pounds per day since 1995), initial constituent mass removal rates from the entire remediation system were approximately 88 pounds of total VOCs per day during the startup phase of system operations. This removal rate has decreased to approximately 1.46 pounds of total VOCs per day, as of this reporting period.

Current operation, maintenance and monitoring activities will continue during the next reporting period. No recommendations for changes or enhancements to the system are being made at this time.

TABLES

Table 1
Summary of Soil Vapor Extraction Air Flow Rates from the SE and AST Areas
January through June 2010
Wayne Reclamation Recycling

DATE TESTED	AIR FLOW (scfm)	
	SOUTHEAST AREA	AST AREA
1/25/10	0	1200
2/17/10	0	970
3/9/10	0	1300
4/16/10	0	1300
5/10/10	0	1300
6/25/10	0	980
AVERAGE FLOW:	0	1175
MAXIMUM FLOW:	0	1300
MINIMUM FLOW:	0	970

Notes:

Average Flow is based on operating flow rates while the air stripper is operating.
AST = Aboveground Storage Tank.
Flow measurement reported in standard cubic feet per minute (scfm).
All flow measurements are approximate.
Vacuum and flow measurements at the individual soil vapor extraction wells were suspended as of October 2002.
The operation of Branch Line H in the AST Area was suspended in October 2002.
The operation of SVE wells in the Southeast Area was decreased in November 2006 and suspended in April 2007.

Table 2
Summary of Summa Canister Sampling for Soil Vapor Extraction Lines
April 2010
Wayne Reclamation & Recycling

	AST Area
	Branch G (East Branch)
CONSTITUENT (ppb[v/v])	**4/21/10**
1,1-Dichloroethane	<12.5
cis-1,2-Dichloroethene	**23**
trans-1,2-Dichloroethene	<12.5
Methylene chloride	<12.5
Tetrachloroethene	<12.5
1,1,1-Trichloroethane	<12.5
Trichloroethene	**40.3**
1,2,4-Trimethylbenzene	<12.5
1,3,5-Trimethylbenzene	<12.5
Vinyl Chloride	<12.5
Xylenes, Total	<32.5
Soil Vapor Extraction Wells:	41 - 43, 50, and 53 - 58

Notes: < = Not detected greater than the reporting limit provided.
NA = Not analyzed
AST = Above ground storage tank
ppb[v/v] = parts per billion (volume)

Table 3
Monitoring Well Analytical Results
April 2010
Wayne Reclamation & Recycling

CONSTITUENT	MW-4S (RW-4 Area) 4/20/10	MW-9S (AST Area) 4/20/10	MW-10S (Southeast Area) 4/20/10	MW-14S (AST Area) 4/20/10	MW-83AS (Southeast Area) 4/20/10	PRG (µg/L)
VOCs (µg/L)						
Acetone	< 20	< 200	< 20	< 20	< 20	**3,650**
Benzene	*< 1*	*< 10*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane	< 2	< 20	< 2	< 2	< 2	--
2-Butanone (MEK)	< 20	< 200	< 20	< 20	< 20	--
n-Butylbenzene	< 1	< 10	< 1	< 1	< 1	--
Carbon Disulfide	< 20	< 200	< 20	< 20	< 20	**768**
Chloroethane	<2	< 20	<2	<2	< 2	--
Chloroform	*< 1*	*< 10*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	< 1	< 10	< 1	< 1	< 1	--
1,1-Dichloroethane	< 1	< 10	< 1	**24**	**12**	**973**
1,2-Dichloroethane	< 1	< 10	< 1	< 1	< 1	--
1,1-Dichloroethene	*< 1*	*< 10*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene	< 1	**13,200**	**254**	**2**	**251**	**70**
trans-1,2-Dichloroethene	< 1	**105**	**59**	< 1	< 1	**100**
1,2-Dichloroethene, Total	< 1	**13,305**	**313**	**2**	**251**	(170)
1,2-Dichloropropane	< 1	*< 10*	< 1	< 1	< 1	**1.25**
Ethylbenzene	< 1	< 10	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)	< 20	< 200	< 20	< 20	< 20	**487**
Tetrachloroethene	< 1	*< 10*	< 1	< 1	< 1 J	**1.43**
Toluene	< 1	< 10	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	< 1	< 10	< 1	<1.0	< 1	**200**
1,1,2-Trichloroethane	*< 1*	*< 10*	*< 1*	*< 1*	< 1	**0.314**
Trichloroethene	< 1	**989**	**1.9**	< 1	< 1	**2.54**
1,2,4-Trimethylbenzene	< 5	< 50	< 5	< 5	< 5	--
Vinyl Chloride	*<1.0*	**218**	**17.5**	*<1.0*	**280**	**0.0283**
Xylenes, Total	< 2	< 10	< 2	< 1	< 1	**828**
TOTAL VOCs	**0**	**14,518**	**332**	**26**	**543**	--
Metals (mg/L)						
Arsenic, Dissolved	< 0.1	< 0.1	< 0.1	<0.10	< 0.1	--
Barium, Dissolved	**0.12**	**0.052**	**0.025**	**0.047**	**0.063**	--
Cadmium, Dissolved	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	--
Chromium, Dissolved total	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	--
Cyanide, Total	< 0.005	< 0.005	< 0.005	<0.005	< 0.005	--
Lead, Dissolved	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	--
Nickel, Dissolved	<0.01	<0.01	**0.011**	< 0.01	< 0.01	--
Zinc, Dissolved	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	--

Notes:

Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).
< = Not detected greater than the reporting limit provided.
-- = No PRG assigned
(170) = The PRG for 1,2-Dichloroethene, Total is the sum of the PRGs for cis-1,2-Dichloroethene and trans-1,2-Dichloroethene.
AST = Above ground stroage tank

Bold = Analyte detected greater than the laboratory reporting limit.
Italics = Reporting limit greater than the corresponding PRG.
Shaded = Analyte detected greater than the corresponding PRG.

Table 4
Groundwater Treatment System Flow Summary
Wayne Reclamation & Recycling

January 2010		February 2010		March 2010		April 2010		May 2010		June 2010	
DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)
1	75,744	1	73,872	1	42,624	1	69,439	1	61,344	1	62,640
2	75,744	2	73,872	2	42,624	2	81,360	2	61,344	2	62,640
3	75,744	3	77,490	3	82,944	3	81,360	3	61,344	3	62,640
4	75,744	4	82,656	4	82,944	4	81,360	4	61,344	4	62,640
5	75,744	5	80,647	5	82,944	5	81,360	5	61,344	5	62,640
6	75,744	6	82,656	6	82,944	6	81,360	6	103,824	6	62,640
7	75,744	7	82,656	7	82,944	7	96,912	7	103,824	7	62,640
8	75,744	8	82,656	8	82,944	8	96,912	8	103,824	8	62,640
9	75,744	9	75,312	9	82,944	9	96,912	9	103,824	9	62,640
10	75,744	10	75,312	10	81,504	10	96,912	10	129,312	10	62,640
11	51,264	11	75,312	11	81,504	11	96,912	11	129,312	11	62,640
12	51,264	12	75,312	12	81,504	12	96,912	12	129,312	12	62,640
13	51,264	13	75,312	13	81,504	13	96,912	13	129,312	13	62,640
14	51,264	14	75,312	14	81,504	14	94,608	14	129,312	14	85,392
15	51,264	15	75,312	15	81,504	15	94,608	15	129,312	15	85,392
16	51,264	16	75,312	16	81,504	16	94,608	16	129,312	16	85,392
17	51,264	17	75,312	17	81,504	17	94,608	17	129,312	17	85,392
18	51,264	18	83,376	18	81,504	18	94,608	18	124,992	18	85,392
19	78,336	19	83,376	19	85,248	19	94,608	19	124,992	19	83,020
20	78,336	20	83,376	20	85,248	20	94,608	20	124,992	20	88,128
21	78,336	21	83,376	21	85,248	21	94,608	21	124,992	21	88,128
22	78,336	22	83,376	22	85,248	22	94,608	22	124,992	22	88,128
23	78,336	23	83,376	23	85,248	23	91,152	23	124,992	23	88,128
24	78,336	24	83,952	24	85,248	24	91,152	24	124,992	24	88,128
25	78,336	25	83,952	25	85,248	25	91,152	25	124,992	25	88,128
26	73,872	26	83,952	26	71,159	26	91,152	26	114,768	26	109,584
27	73,872	27	83,952	27	83,376	27	91,152	27	114,768	27	109,584
28	73,872	28	83,952	28	83,376	28	91,152	28	114,768	28	109,584
29	73,872			29	83,376	29	91,152	29	114,768	29	109,584
30	73,872			30	83,376	30	91,152	30	114,768	30	109,584
31	73,872			31	83,376			31	114,768		
Total Monthly Flow (gallons)	2,159,136		2,234,329		2,484,167		2,735,311		3,445,056		2,400,988
Average Daily Flow (gallons)	69,600		79,800		80,100		91,200		111,100		80,000
Total Plant Run Time (minutes)	44,640		40,195		44,429		42,989		44,640		43,160
Av. Flow During Actual Plant Run Time (gpm)	**48**		**56**		**56**		**64**		**77**		**56**

Period	Total Gallons Treated
6 Months	15,458,987
12 Months	29,684,690
Since 1995	403,402,507

Notes:
gpd = Gallons per day. Av. = Average. gpm = Gallons per minute.
Av. Flow is calculated by dividing the total monthly flow by the total number of operational days for the given month.

Table 5
Summary of Groundwater Elevations
Wayne Reclamation & Recycling

Well Identification	Date: TOIC Elevation 2001 - 2003	01/25/2010	02/17/2010	03/09/2010	04/15/2010	05/10/2010	06/25/2010
		Groundwater Elevation (feet above mean sea level)					
MW-1D	826.08	--	--	--	808.52	--	--
MW-2S	825.34	808.67	808.69	808.65	808.64	809.43	810.12
MW-3S	824.06	808.36	808.32	808.30	808.87	809.02	810.06
MW-4S	843.06	--	--	--	811.59	--	--
MW-5S	833.02	--	--	--	812.58	--	--
MW-7S	836.12	--	--	--	811.52	--	--
MW-8S	835.52	--	--	--	810.09	--	--
MW-8D	834.11	--	--	--	810.42	--	--
MW-9S	825.44	--	--	--	811.44	--	--
MW-10S	823.15	808.56	808.32	808.31	808.63	809.00	810.04
MW-11S	825.08	808.86	808.58	808.67	808.72	809.35	810.24
MW-13S	826.40	811.48	811.24	811.73	811.67	811.66	812.12
MW-13D	826.44	--	--	--	809.84	--	--
MW-14S	821.30	--	--	--	811.30	--	--
MW-15S	827.64	--	--	--	811.79	--	--
MW-16S	827.41	--	--	--	811.69	--	--
MW-17S	826.56	--	--	--	812.07	--	--
MW-18S	824.16	--	--	--	811.16	--	--
MW-19S	832.07	--	--	--	812.02	--	--
P-1	834.28	--	--	--	811.75	--	--
P-2	825.49	--	--	--	811.70	--	--
P-3	823.48	--	--	--	811.65	--	--
P-4	822.67	--	--	--	811.59	--	--
MW-83AD	826.15	809.14	809.22	809.82	809.71	810.24	811.88
MW-83AS	826.13	808.45	808.58	808.56	808.56	809.32	810.04
MW-83B	840.55	--	--	--	810.83	--	--
MW-83DD	825.30	--	--	--	811.25	--	--
MW-83DS	825.21	810.08	810.27	810.81	810.87	811.03	812.22
GM-3	822.87	--	--	--	--	--	--
GM-4	827.40	--	--	--	--	--	--
PZ-1	823.66	--	--	--	--	--	--
PZ-2	825.73	--	--	--	--	--	--
PZ-3	826.46	--	--	--	--	--	--
PZ-4	825.52	--	--	--	--	--	--
G-1	808.82	--	--	--	--	--	--
G-2	810.10	--	--	--	--	--	--
G-3	809.91	--	--	--	--	--	--
G-4	810.21	--	--	--	--	--	--
RW-1	818.45	--	--	--	--	--	--
RW-2	824.29	--	--	--	--	--	--
RW-3	822.71	--	--	--	--	--	--
RW-4	833.24	--	--	--	--	--	--
RW-5	823.94	--	--	--	--	--	--
RW-6	820.71	--	--	--	--	--	--
RW-7	820.21	--	--	--	--	--	--
RW-8	821.86	--	--	--	--	--	--
RW-9	821.69	--	--	--	--	--	--
RW-10	822.55	--	--	--	--	--	--

Notes:

TOIC = Top of inner well casing; MW = monitoring well; P and PZ = piezometer; GM = landfill well; G = river gauge point; RW = recovery well.

TOIC and surface elevations based on Benchmark Surveying, Inc. surveys of 7/2/2001, 10/25/2001, and 5/1/2003, except where noted.

(1) TOIC elevations based on InSite, Inc. survey of 7/2/2002, following repair of those wells.

Table 6
Recovery Well Analytical Results
October 2009
Wayne Reclamation & Recycling

CONSTITUENT	RW-1 10/19/2009	RW-2 10/19/2009	RW-3 10/19/2009	RW-4 10/19/2009	RW-5 10/19/2009	RW-6 10/19/2009	RW-7 10/19/2009	RW-8 10/19/2009	RW-9 10/19/2009	RW-10 10/19/2009	PRG (µg/L)
VOCs (µg/L)											
Acetone	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane	< 2	< 2	< 2	< 2	< 1	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**768**
Chloroethane	**4.7**	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--
Chloroform	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	**75**	**12**	**3**	< 1	**4.3**	**10**	< 1	**46**	< 1	**31**	**973**
1,2-Dichloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	*< 1*	*< 1*	*< 1*	*< 1*	*1.5*	*< 1*	*< 1*	**7.9**	**5.0**	**6.7**	**0.0167**
cis-1,2-Dichloroethene	**51**	**32**	**75**	**128**	**1,130**	**1,060**	**285**	**3,190**	**1,640**	**3,080**	**70**
trans-1,2-Dichloroethene	< 1	**1.5**	**2.1**	**13**	**13**	**12**	**6**	**48**	**16**	**44**	**100**
1,2-Dichloroethene, Total	**51**	**34**	**78**	**141**	**1,143**	**1,072**	**291**	**3,238**	**1,656**	**3,124**	(170)
1,2-Dichloropropane	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.6**	< 1	**1.43**
Toluene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	**14**	**14**	**3.1**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	**3.3**	< 1	**68**	< 1	**26**	**171**	**168**	**818**	**370**	**289**	**2.54**
1,2,4-Trimethylbenzene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride	**20**	**1.8**	**6.5**	**2.1**	**264**	**4.3**	**35**	**282**	**169**	**277**	**0.0283**
Xylenes, Total	< 2	< 2	< 1	< 1	< 2	< 1	< 1	< 1	< 1	< 1	**828**
TOTAL VOCs	**169**	**62**	**158**	**143**	**1,438**	**1,257**	**494**	**4,391**	**2,203**	**3,728**	--

Notes:

Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L)
-- = No PRG assigned.
< = Not detected above the reporting limit provided
(170) = The PRG for 1,2-Dichloroethene, Total is the sum of the PRGs for cis-1,2-Dichloroethene and trans-1,2-Dichloroethene

Bold = Analyte detected above laboratory reporting limit
Italics = Reporting limit above the corresponding PRG.
Shaded = Analyte detected above the corresponding PRG.

Table 7
Summary of Groundwater Treatment System Volatile Organic Compound
Influent and Effluent Sampling
Wayne Reclamation Recycling

	1/25/2010		2/17/2010		3/9/2010	
CONSTITUENT	**IN**	**EFF**	**IN**	**EFF**	**IN**	**EFF**
VOCs (µg/L)						
1,1-Dichloroethane	**19**	<1.0	**15**	<1.0	**19**	<1.0
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	**3**	<1.0	**3**	<1.0	**7**	<1.0
cis-1,2-Dichloroethene	**1,460**	**32**	**1,090**	**48**	**1,210**	**34**
trans-1,2-Dichloroethene	**20**	<1.0	**13**	<1.0	**17**	<1.0
Trichloroethene	**241**	**1**	**233**	**5**	**275**	**7**
Vinyl Chloride	**210**	<1.0	**178**	<1.0	**214**	<1.0
Total VOC Concentration	**1,953**	**33**	**1,532**	**53**	**1,742**	**40**

	4/16/2010		5/10/2010		6/25/2010	
CONSTITUENT	**IN**	**EFF**	**IN**	**EFF**	**IN**	**EFF**
VOCs (µg/L)						
1,1-Dichloroethane	**20**	<1.0	**14**	<1.0	**17**	<1.0
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	**5**	<1.0	**6**	<1.0	**4**	<1.0
cis-1,2-Dichloroethene	**1,590**	**57**	**1,230**	**64**	**1,570**	**30**
trans-1,2-Dichloroethene	**28**	<1.0	**24**	<1.0	**26**	<1.0
Trichloroethene	**633**	**10**	**567**	**14**	**689**	**6**
Vinyl Chloride	**234**	<1.0	**149**	<1.0	**169**	<1.0
Total VOC Concentration	**2,510**	**67**	**1,990**	**78**	**2,475**	**36**

Notes:

Volatile organic compounds (VOCs) reported in micrograms per liter (µg/L).
< = Not detected above the reporting limit provided.
Bold = Analyte detected above the laboratory reporting limit.
Results indicated for primary detected constituents.

IN = Influent water sample.
EFF = Effluent water sample.

Table 8
Summary of Treatment System Air Sampling
Wayne Reclamation & Recycling

CONSTITUENT (ppb[v/v])	1/25/2010	2/17/2010	3/09/2010	4/16/2010	5/10/2010	6/25/2010
	EFFLUENT SAMPLE					
1,1-Dichloroethane	<14.3	**19**	<58.9	**24**	**16**	<14.3
1,1-Dichloroethene	<14.3	<13.8	<57.8	<13.4	<13.8	<14.3
cis-1,2-Dichloroethene	**1,060**	**4,680**	**1,550**	**2,510**	**2,690**	**893**
trans-1,2-Dichloroethene	<14.3	**18**	<57.8	**34**	**26**	**21**
Tetrachloroethene	<14.3	<13.8	<98.7	<13.4	<13.8	<14.3
Toluene	<14.3	<13.8	<54.9	<13.4	<13.8	<14.3
1,1,1-Trichloroethane	<14.3	<13.8	<79.2	<13.4	<13.8	<14.3
Trichloroethene	**145**	**246**	**300**	**639**	**1,020**	**401**
Vinyl Chloride	**281**	**289**	**261**	**373**	**267**	**167**
Cumulative Risk (1)	**7.49E-08**	**8.20E-08**	**8.85E-08**	**1.22E-07**	**1.18E-07**	**6.19E-08**

Notes:

(1) Cumulative Risk calculation is indicated on Table 9.

Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

< = Not detected above the reporting limit provided

Bold = Analyte detected above the laboratory reporting limit.

Air treatment system was discontinued on June 24, 1999. Air is now discharged directly to the atmosphere.

Table 9
Summary of Air Dispersion Calculations
Wayne Reclamation & Recycling

Description / Sample Date	Input / Output	CONSTITUENTS									Cumulative Cancer Risk
		PCE *Carcinogen*	**TCE** *Carcinogen*	**1,1-DCE** *Non-Carcinogen*	**cis-1,2-DCE** *Non-Carcinogen*	**trans-1,2-DCE** *Non-Carcinogen*	**VC** *Carcinogen*	**1,1,1-TCA** *Non-Carcinogen*	**1,1-DCA** *Carcinogen*	**Toluene** *Non-Carcinogen*	
EFF	(ppb[v/v])	14	145	14	1060	14	281	14	14		
1/25/2010	(g/s)	0.0001	0.0008	0.0001	0.0059	0.0001	0.0016	0.0001	0.0001	0.0000	
	Max.Conc.	0.000	0.004	0.000	0.028	0.000	0.007	0.000	0.000	0.000	
	ECR	2.22E-09	7.63E-09				6.50E-08		6.13E-12		7.49E-08
EFF	(ppb[v/v])	14	246	14	4680	18	289	14	19		
2/17/2010	(g/s)	0.0001	0.0014	0.0001	0.0262	0.0001	0.0016	0.0001	0.0001	0.0000	
	Max.Conc.	0.000	0.006	0.000	0.123	0.000	0.008	0.000	0.000	0.000	
	ECR	2.14E-09	1.29E-08				6.69E-08		8.15E-12		8.20E-08
EFF	(ppb[v/v])	79	300	58	1550	58	261	79	59		
3/09/2010	(g/s)	0.0004	0.0017	0.0003	0.0087	0.0003	0.0015	0.0004	0.0003	0.0000	
	Max.Conc.	0.002	0.008	0.002	0.041	0.002	0.007	0.002	0.002	0.000	
	ECR	1.23E-08	1.58E-08				6.04E-08		2.53E-11		8.85E-08
EFF	(ppb[v/v])	13	639	13	2510	34	373	13	24		
4/16/2010	(g/s)	0.0001	0.0036	0.0001	0.0141	0.0002	0.0021	0.0001	0.0001	0.0000	
	Max.Conc.	0.000	0.017	0.000	0.066	0.001	0.010	0.000	0.001	0.000	
	ECR	2.08E-09	3.36E-08				8.63E-08		1.03E-11		1.22E-07
EFF	(ppb[v/v])	14	1020	14	2690	26	267	14	16		
5/10/2010	(g/s)	0.0001	0.0057	0.0001	0.0151	0.0001	0.0015	0.0001	0.0001	0.0000	
	Max.Conc.	0.000	0.027	0.000	0.071	0.001	0.007	0.000	0.000	0.000	
	ECR	2.14E-09	5.37E-08				6.18E-08		6.86E-12		1.18E-07
EFF	(ppb[v/v])	14	401	14	893	21	167	14	14	14	
6/25/2010	(g/s)	0.0001	0.0022	0.0001	0.0050	0.0001	0.0009	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.011	0.000	0.023	0.001	0.004	0.000	0.000	0.000	
	ECR	2.17E-09	2.11E-08				3.87E-08		6.00E-12		6.19E-08

Notes:

Detected constituent concentrations in parts per billion on a volume per volume basis (ppb[v/v]).

g/s = ppb[v/v] x 1,000 / (22,500 x 2.205 x 3,600).

ECR = Excess Cancer Risk = Maximum concentration (in $\mu g/m^3$) x Unit Risk Factor.

IN = Sample collected from air treatment system influent.

EFF = Sample collected from air treatment system effluent.

Bold = Cumulative Cancer Risk above action level.

PCE - Tetrachloroethene
TCE - Trichloroethene
1,1-DCE - 1,1-Dichloroethene
cis-1,2-DCE - cis-1,2-Dichloroethene
trans-1,2-DCE - trans-1,2-Dichloroethene
VC - Vinyl chloride
1,1,1-TCA - 1,1,1-Trichloroethane
1,1-DCA - 1,1-Dichloroethane

Max. Conc. = Maximum predicted concentration in micrograms per meter cubed ($\mu g/m^3$) from ISC-LT2 model run output.

Unit Risk Factors are:

Vinyl Chloride	--	8.80E-06
1,1-Dichloroethane	--	1.63E-08
Trichloroethene	--	2.00E-06
Tetrachloroethene	--	5.90E-06

FIGURES

NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN. DRAWING NO. 24537, DATED 05-28-92 AND SITE SURVEY CONDUCTED BY AYRES, LEWIS, NORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1992.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASG-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
4. RECORD OF CONSTRUCTION PIPING LAYOUT IS BASED ON FIELD MEASUREMENTS AND OBSERVATIONS. PIPING LAYOUT WAS NOT SURVEYED.

LEGEND

- RECOVERY WELL LOCATION
- MONITORING WELL LOCATION
- PIEZOMETER LOCATION
- RIVER GAUGE POINT LOCATION
- RIVER WATER SAMPLING LOCATION
- SYSTEM PIPING

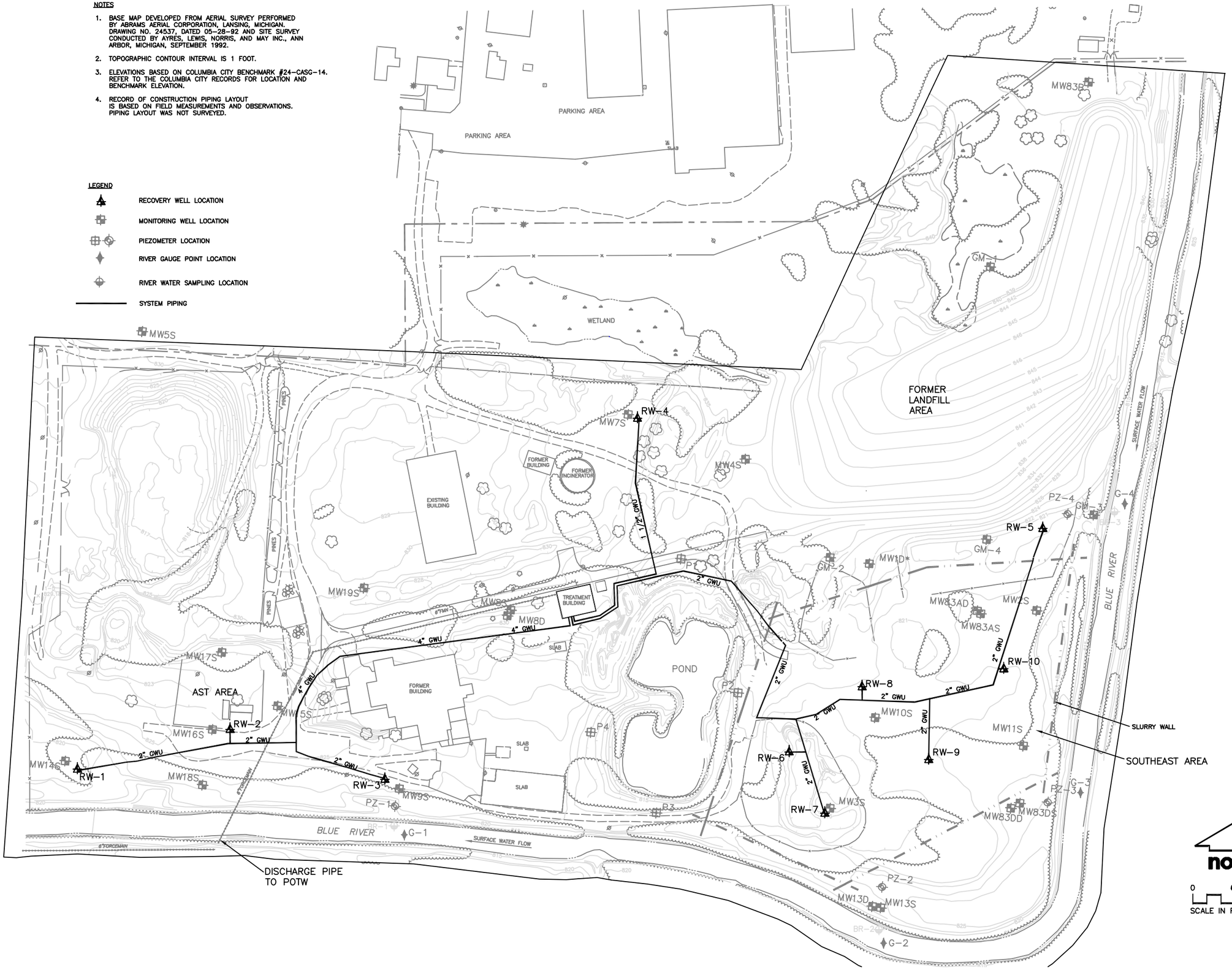


FIGURE 1

Issuance/Revisions	Date	By	Apprvd.

Release

Developed By BRT
Approved By BRT
Drawn By DTM
Date 1/19/10
Reference
Consultants

SITE PLAN – GROUNDWATER EXTRACTION & TREATMENT SYSTEM AND SLURRY WALL

SEMI-ANNUAL PROGRESS REPORT 30
WAYNE RECLAMATION & RECYCLING, INC.
COLUMBIA CITY, INDIANA

Printed

Sheet Number
1 of 1

Drawing Number
1008811
010101 D1

MWH

J:\01_INDUSTRIAL-OTHER\3868-Wayne RR\5-CADD\SAPR 30\Fig 01 Grdwtr Ext Treat Sys.dwg Jul/26/10

NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN. DRAWING NO. 24537, DATED 05-28-92 AND SITE SURVEY CONDUCTED BY AYRES, LEWIS, NORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1992.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASG-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
4. RECORD OF CONSTRUCTION PIPING LAYOUT IS BASED ON FIELD MEASUREMENTS AND OBSERVATIONS. PIPING LAYOUT WAS NOT SURVEYED.

LEGEND

- PRESSURE PROBE LOCATION
- SOIL VAPOR EXTRACTION
- MONITORING WELL LOCATION
- PIEZOMETER LOCATION
- RIVER GAUGE POINT LOCATION
- RIVER WATER SAMPLING LOCATION
- SYSTEM PIPING

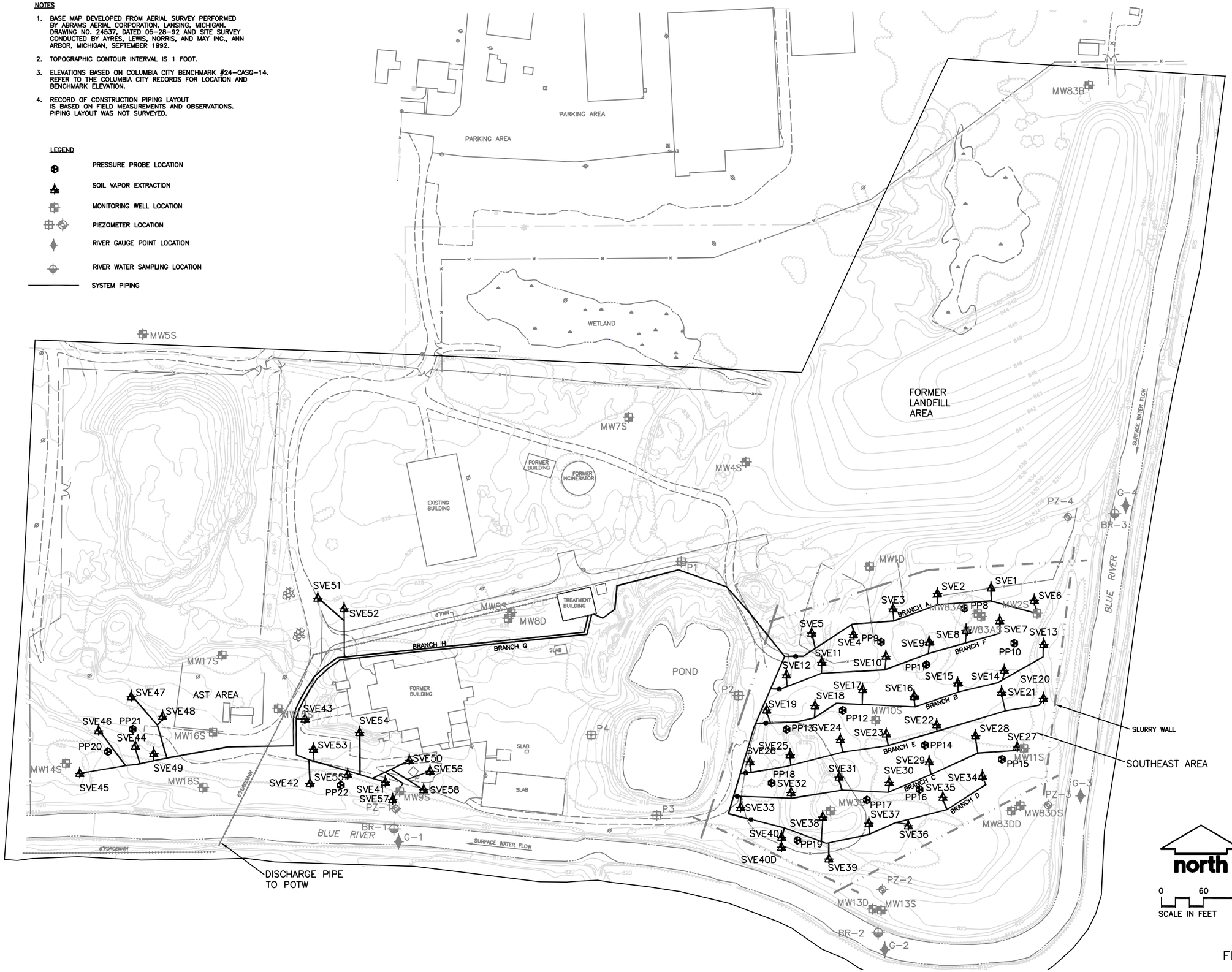


FIGURE 2

Releases	Issuance/Revisions	Date	By	Apprvd.

Developed By BRT
Approved By BRT
Drawn By DTM
Date 1/19/10
Reference
Consultants

SITE PLAN - SOIL VAPOR EXTRACTION SYSTEM

SEMI-ANNUAL PROGRESS REPORT 30
WAYNE RECLAMATION & RECYCLING, INC.
COLUMBIA CITY, INDIANA

Printed

Sheet Number
1 of 1

Drawing Number
1008811
010101 D2

MWH

J:\01_INDUSTRIAL-OTHER\3868-Wayne RR\5-CADD\SAPR 30\Fig 02 Soil Vap Ext Sys.dwg Jul/26/10

NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN. DRAWING NO. 24537, DATED 05-28-92 AND SITE SURVEY CONDUCTED BY AYRES, LEWIS, NORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1992.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASG-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
4. RECORD OF CONSTRUCTION PIPING LAYOUT IS BASED ON FIELD MEASUREMENTS AND OBSERVATIONS. PIPING LAYOUT WAS NOT SURVEYED.

LEGEND

- AIR SPARGING WELL LOCATION
- RECOVERY WELL LOCATION
- MONITORING WELL LOCATION
- PIEZOMETER LOCATION
- RIVER GAUGE POINT LOCATION
- RIVER WATER SAMPLING LOCATION
- SYSTEM PIPING

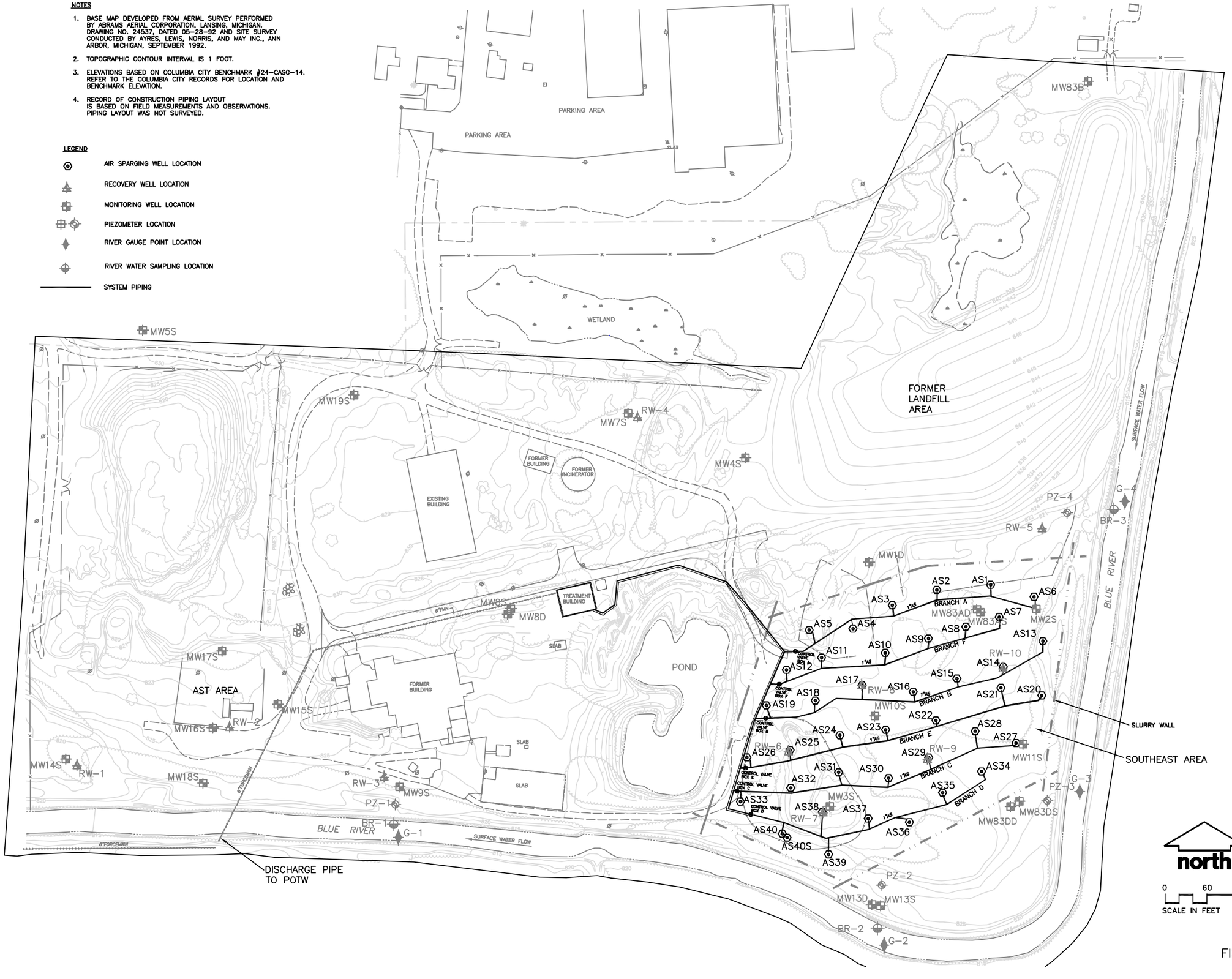


FIGURE 3

Developed By	BRT	Drawn By	DTM
Approved By	BRT	Date	1/19/10
Reference			
Consultants			

Approvd.	By	Date	Issuance/Revisions	Release

SITE PLAN – AIR SPARGING SYSTEM

SEMI-ANNUAL PROGRESS REPORT 30
WAYNE RECLAMATION & RECYCLING, INC.
COLUMBIA CITY, INDIANA

Printed

Sheet Number
1 of 1

Drawing Number
1008811
010101 D3

MWH

J:\01_INDUSTRIAL-OTHER\3868-Wayne RR\5-CADD\SAPR 30\Fig 03 Air Spar Sys.dwg Jul/26/10

Figure 4
Summary of Groundwater Treatment and SVE Systems Combined Air System Effluent Data
Wayne Reclamation & Recycling

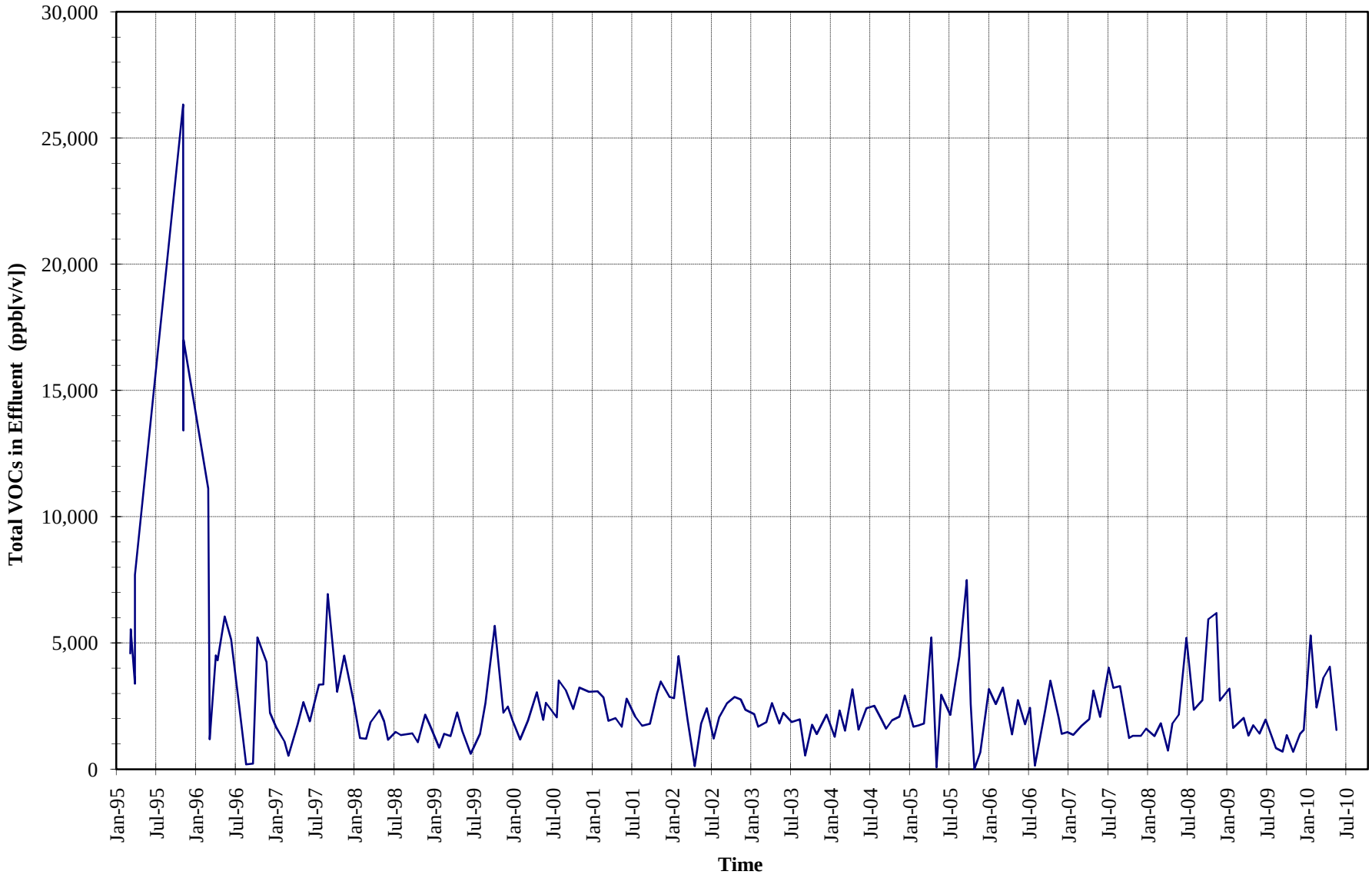


Figure 5
Cumulative and Sustained Groundwater Recovery
Wayne Reclamation & Recycling

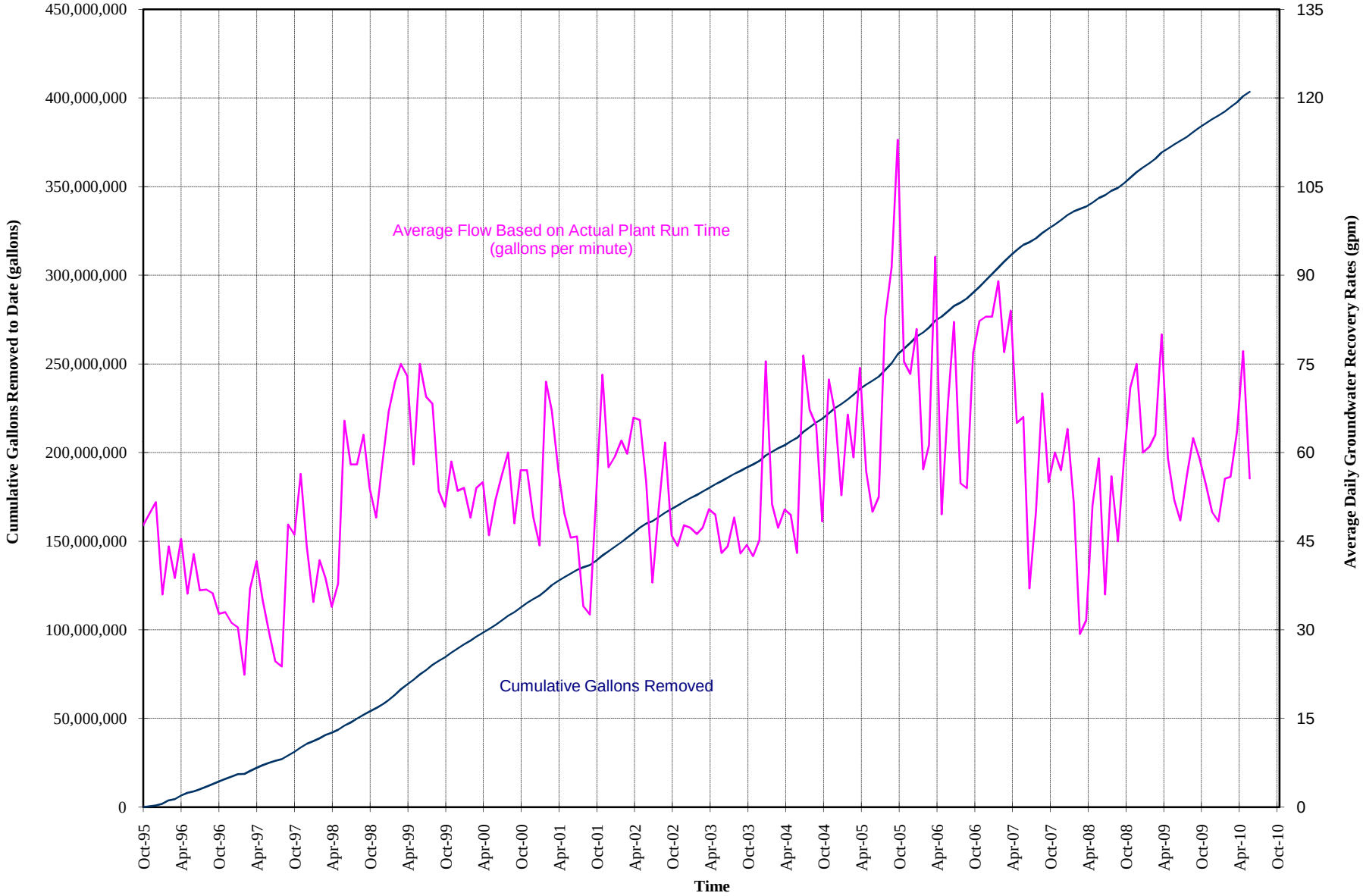
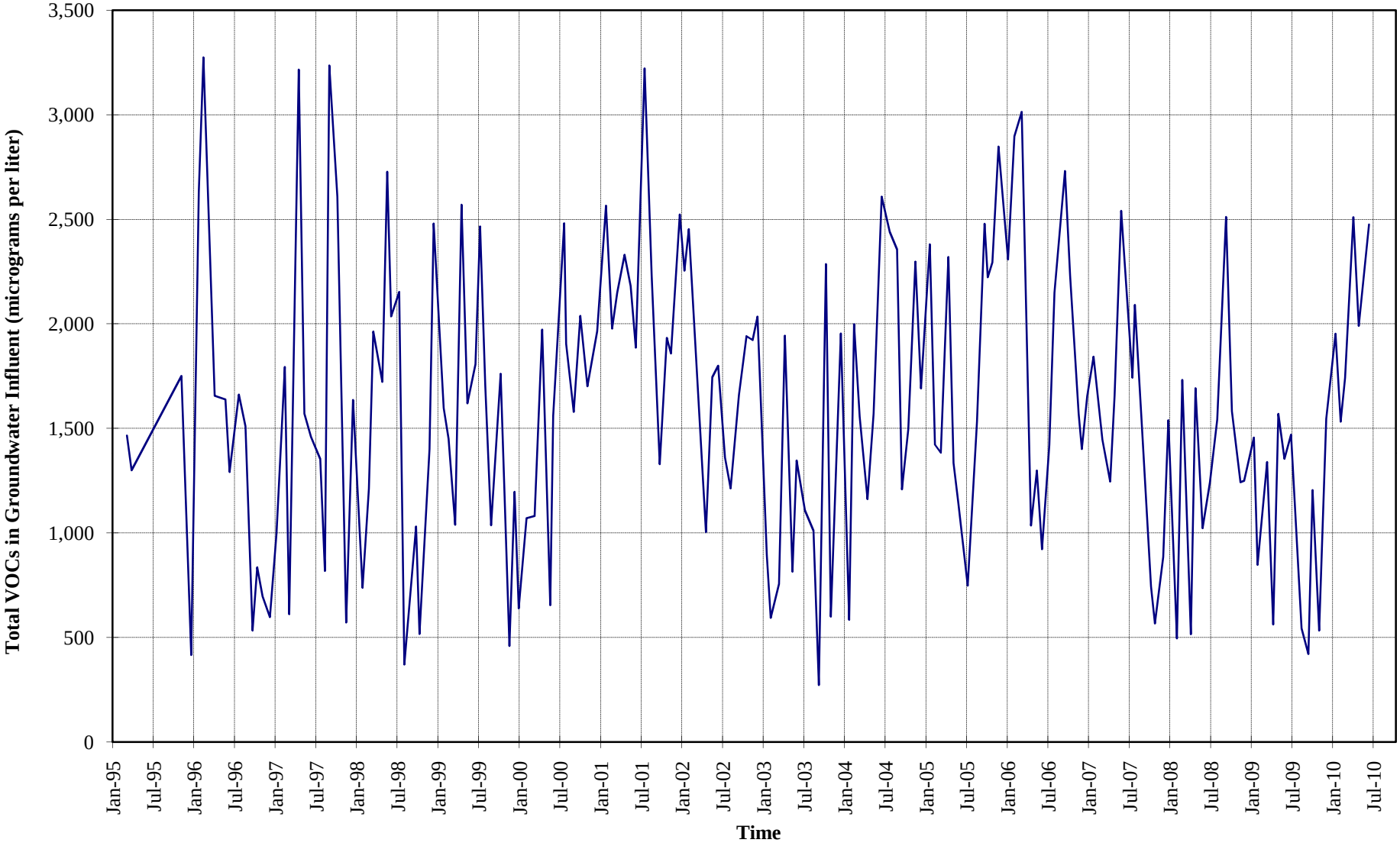


Figure 6
Summary of Groundwater Treatment System Influent Data
Wayne Reclamation & Recycling



NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN. DRAWING NO. 24537, DATED 05-28-92 AND SITE SURVEY CONDUCTED BY AYRES, LEWIS, NORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1992.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASG-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
4. INDICATED CONTOURS BASED ON AVAILABLE MONTHLY WATER ELEVATIONS.
5. WATER ELEVATIONS FOR MW-83AD SHOWN TO INDICATE VERTICAL GRADIENT.

LEGEND

- RECOVERY WELL LOCATION
- MONITORING WELL LOCATION
- PIEZOMETER LOCATION
- GAUGE POINT LOCATION
- * NOT USED IN CONTOURING
- 809.0 GROUNDWATER CONTOUR (IN FEET) REFERENCED TO MEAN SEA LEVEL; CONTOUR INTERVAL = 0.5 FEET
- APPARENT HORIZONTAL GROUNDWATER FLOW DIRECTION

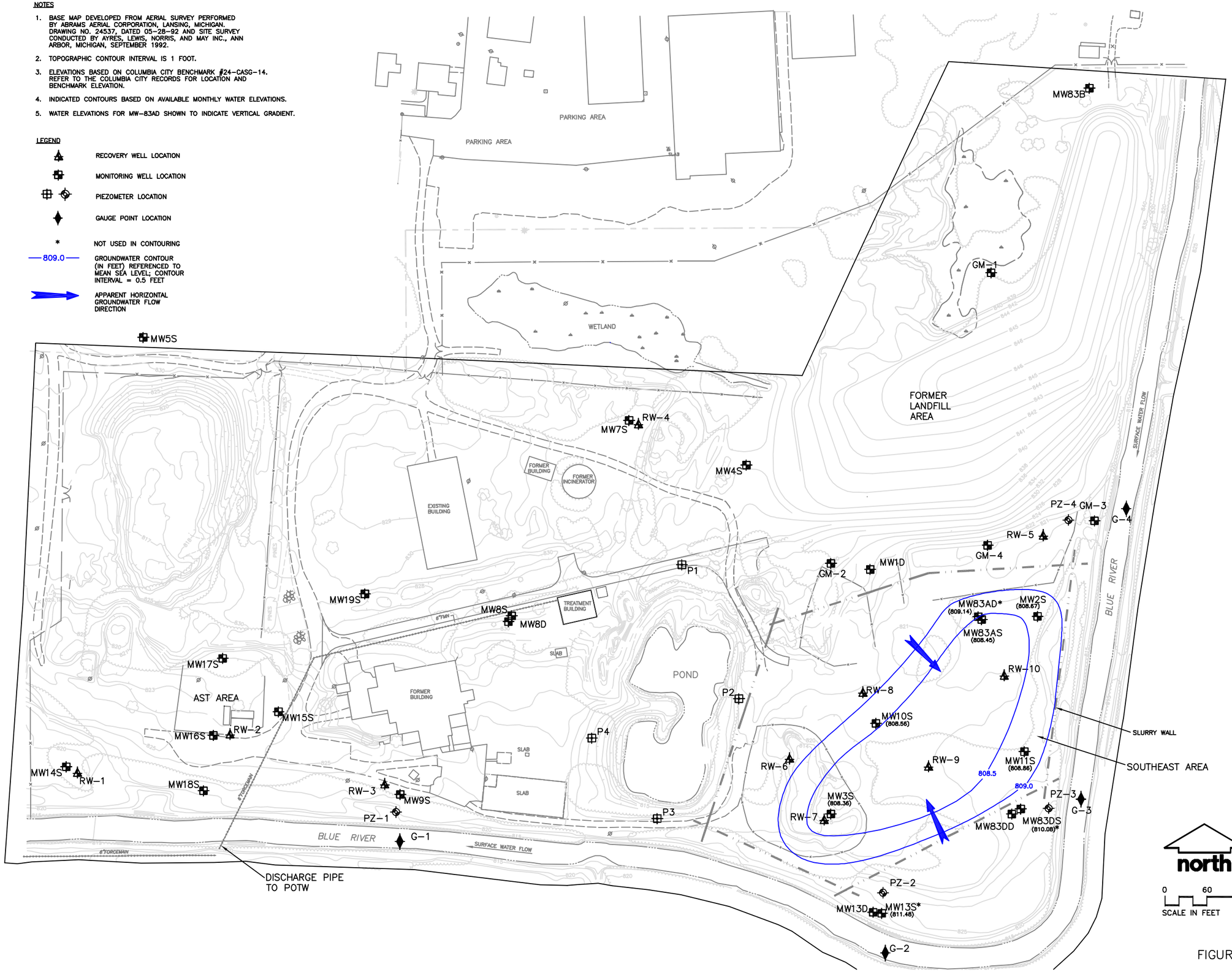


FIGURE 7-1

Developed By	BRT	Drawn By	ATF
Approved By	BRT	Date	7/26/10
Reference			
Consultants			

Releases	Issuance/Revisions	Date	By	Apprvd.

GROUNDWATER CONTOURS - JANUARY 2010

SEMI-ANNUAL PROGRESS REPORT 30
WAYNE RECLAMATION & RECYCLING, INC.
COLUMBIA CITY, INDIANA

Printed

Sheet Number
1 of 7

Drawing Number
1008811
010101 D4

MWH

J:\01_INDUSTRIAL-OTHER\3868-Wayne RR\5-CADD\SAPR 30\Fig 07_1 Cont 07.dwg Jul/26/10

NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN. DRAWING NO. 24537, DATED 05-28-92 AND SITE SURVEY CONDUCTED BY AYRES, LEWIS, NORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1992.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASG-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
4. INDICATED CONTOURS BASED ON AVAILABLE MONTHLY WATER ELEVATIONS.
5. WATER ELEVATIONS FOR MW-83AD SHOWN TO INDICATE VERTICAL GRADIENT.

LEGEND

- RECOVERY WELL LOCATION
- MONITORING WELL LOCATION
- PIEZOMETER LOCATION
- GAUGE POINT LOCATION
- * NOT USED IN CONTOURING
- 809.0 GROUNDWATER CONTOUR (IN FEET) REFERENCED TO MEAN SEA LEVEL; CONTOUR INTERVAL = 0.5 FEET
- APPARENT HORIZONTAL GROUNDWATER FLOW DIRECTION

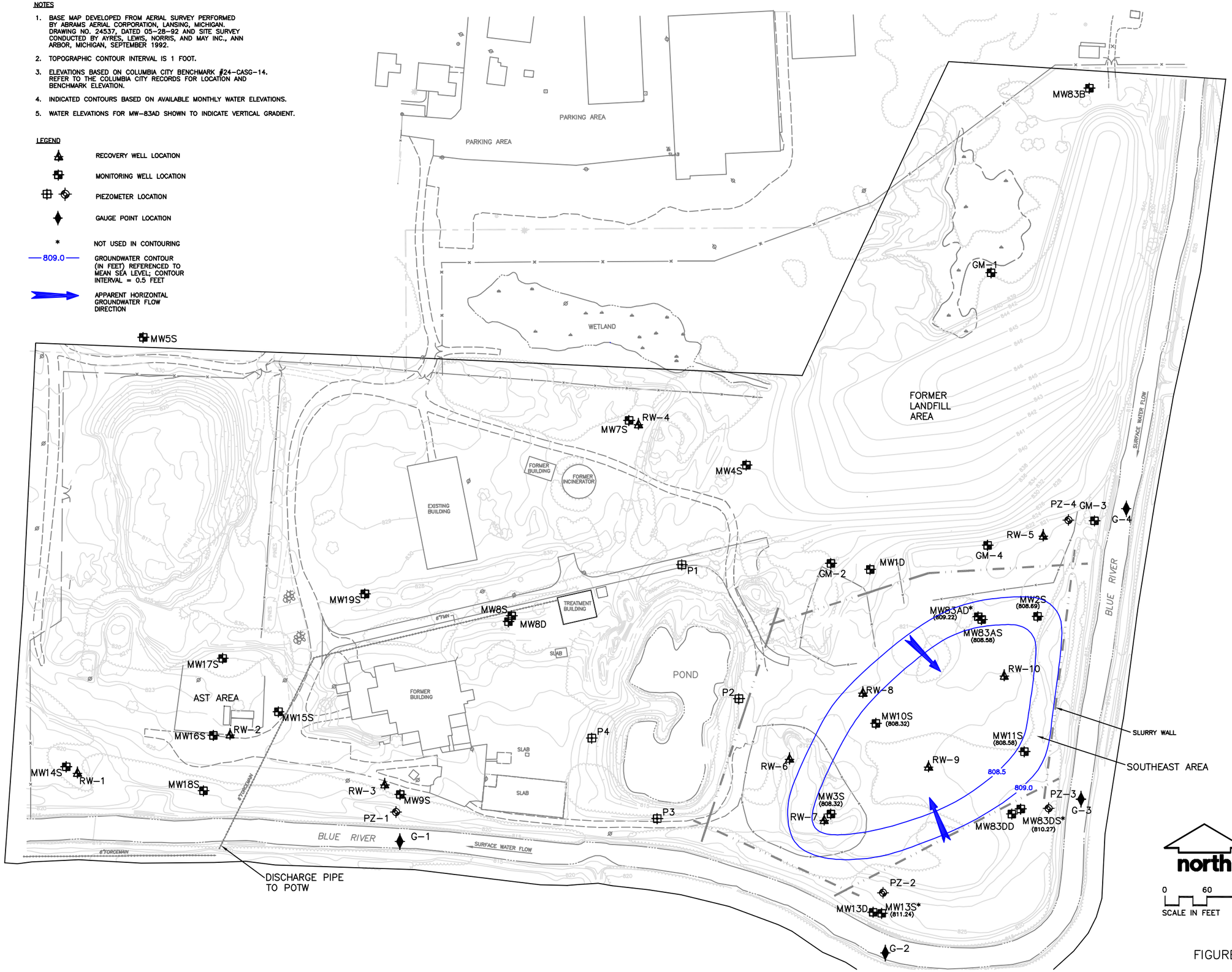


FIGURE 7-2

Developed By	BRT
Approved By	BRT
Drawn By	ATF
Date	7/26/10
Reference	
Consultants	
Approvd.	
By	
Date	
Issuance/Revisions	
Releases	

GROUNDWATER CONTOURS - FEBRUARY 2010

SEMI-ANNUAL PROGRESS REPORT 30
WAYNE RECLAMATION & RECYCLING, INC.
COLUMBIA CITY, INDIANA

Printed

Sheet Number
2 of 7

Drawing Number
1008811
010101 D5

MWH

U:\01_INDUSTRIAL-OTHER\3868-Wayne RR\5-CADD\SAPR 30\Fig 07_2 Cont 07.dwg Jul/26/10

NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN. DRAWING NO. 24537, DATED 05-28-92 AND SITE SURVEY CONDUCTED BY AYRES, LEWIS, NORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1992.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASG-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
4. INDICATED CONTOURS BASED ON AVAILABLE MONTHLY WATER ELEVATIONS.
5. WATER ELEVATIONS FOR MW-83AD SHOWN TO INDICATE VERTICAL GRADIENT.

LEGEND

- RECOVERY WELL LOCATION
- MONITORING WELL LOCATION
- PIEZOMETER LOCATION
- GAUGE POINT LOCATION
- * NOT USED IN CONTOURING
- 808.5 GROUNDWATER CONTOUR (IN FEET) REFERENCED TO MEAN SEA LEVEL; CONTOUR INTERVAL = 0.5 FEET
- APPARENT HORIZONTAL GROUNDWATER FLOW DIRECTION

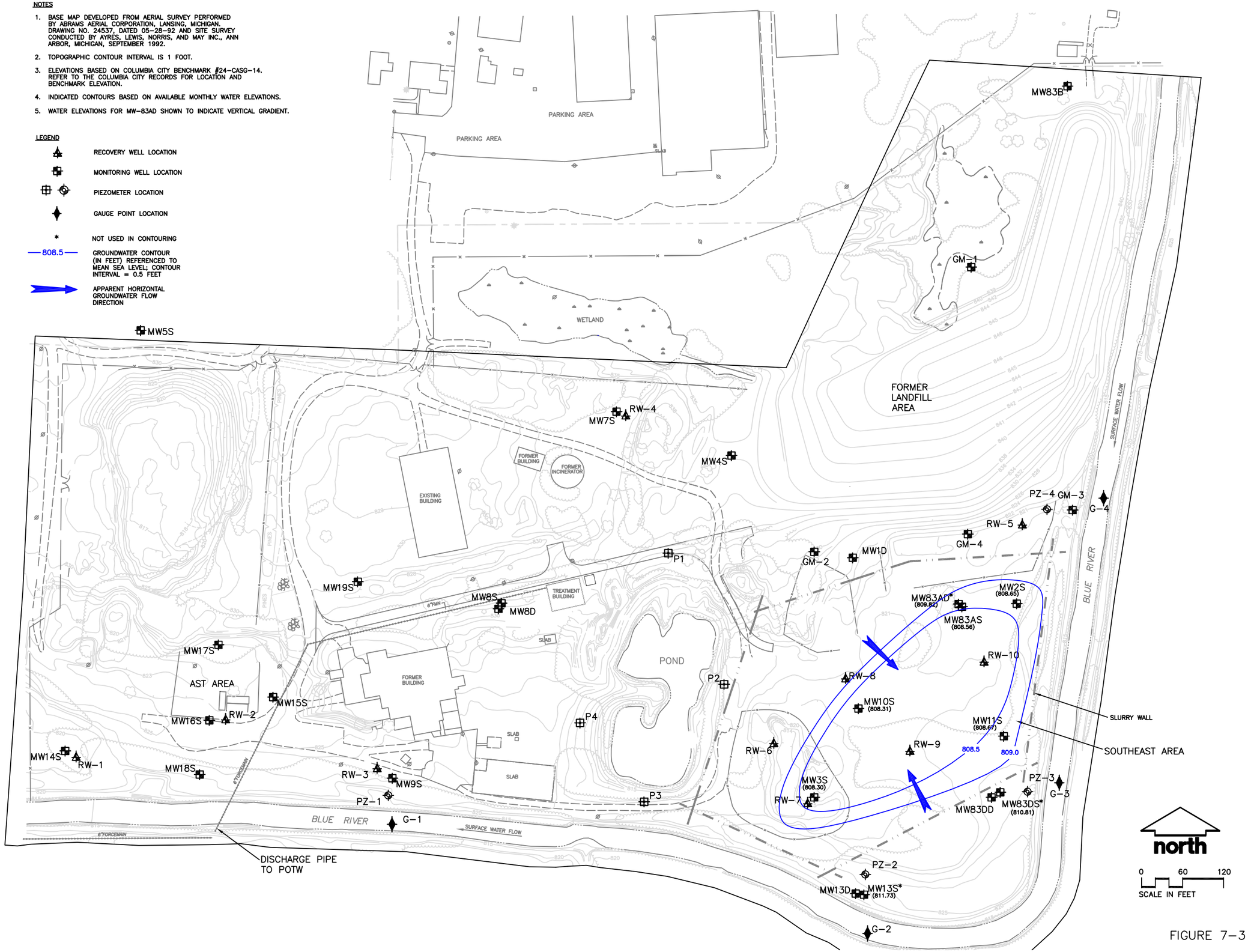


FIGURE 7-3

Developed By	BRT	Drawn By	ATF
Approved By	BRT	Date	7/26/10
Reference			
Consultants			

Releases	Issuance/Revisions	Date	By	Apprvd.

GROUNDWATER CONTOURS - MARCH 2010

SEMI-ANNUAL PROGRESS REPORT 30
WAYNE RECLAMATION & RECYCLING, INC.
COLUMBIA CITY, INDIANA

Printed

Sheet Number
3 of 7

Drawing Number
1008811
010101 D6

MWH

J:\01_INDUSTRIAL-OTHER\3868-Wayne RR\5-CADD\SAPR 30\Fig 07_3 Cont 07.dwg Jul/27/10

NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN. DRAWING NO. 24537, DATED 05-28-92 AND SITE SURVEY CONDUCTED BY AYRES, LEWIS, NORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1992.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASG-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
4. INDICATED CONTOURS BASED ON AVAILABLE MONTHLY WATER ELEVATIONS.
5. WATER ELEVATIONS FOR MW-83AD SHOWN TO INDICATE VERTICAL GRADIENT.

LEGEND

- RECOVERY WELL LOCATION
- MONITORING WELL LOCATION
- PIEZOMETER LOCATION
- GAUGE POINT LOCATION
- * NOT USED IN CONTOURING
- 808.5 GROUNDWATER CONTOUR (IN FEET) REFERENCED TO MEAN SEA LEVEL; CONTOUR INTERVAL = 0.5 FEET
- APPARENT HORIZONTAL GROUNDWATER FLOW DIRECTION

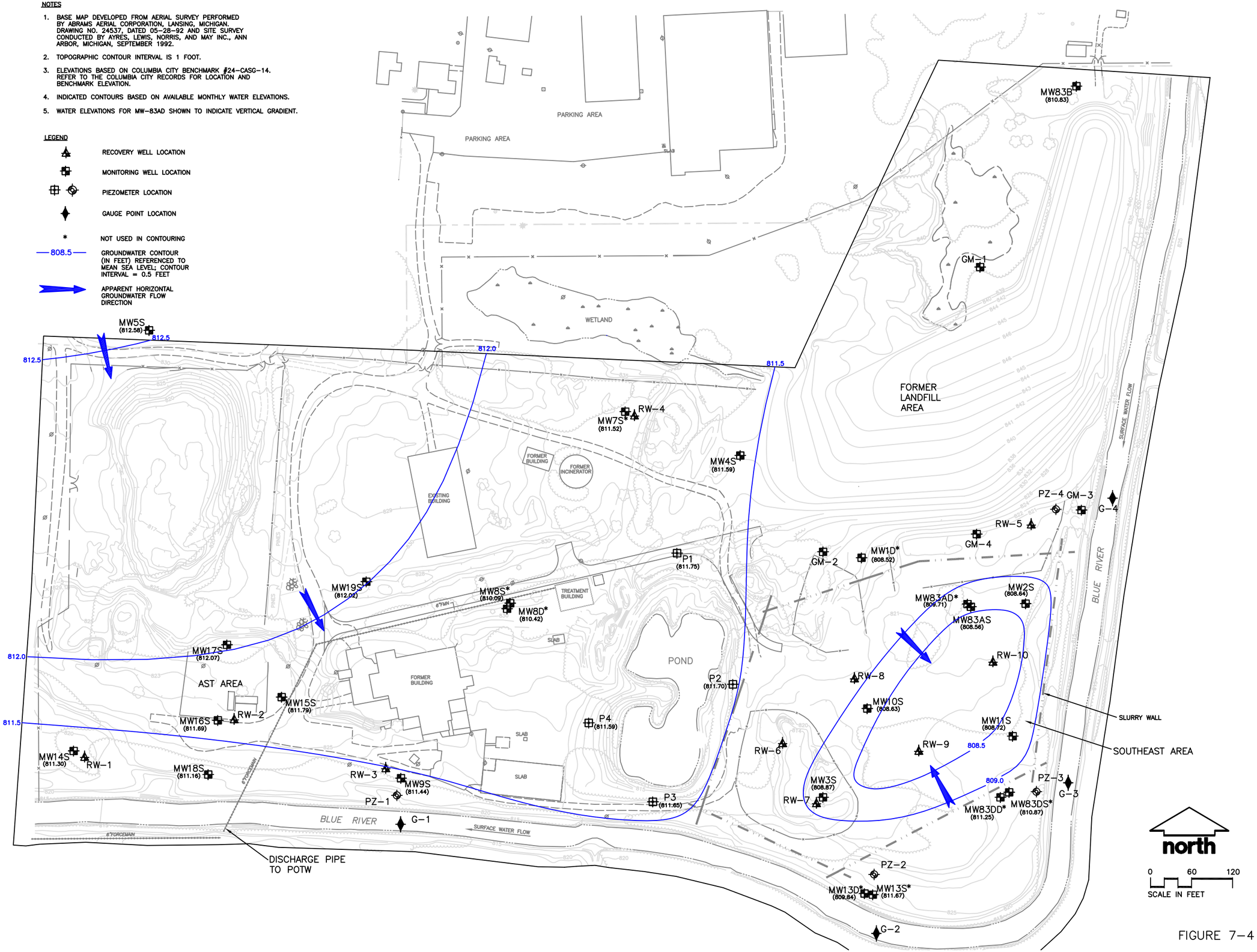


FIGURE 7-4

Developed By	BRT
Approved By	BRT
Drawn By	ATF
Date	7/26/10
Reference	
Consultants	
Approvd.	
By	
Date	
Issuance/Revisions	
Releases	

GROUNDWATER CONTOURS - APRIL 2010

SEMI-ANNUAL PROGRESS REPORT 30
WAYNE RECLAMATION & RECYCLING, INC.
COLUMBIA CITY, INDIANA

Printed

Sheet Number
4 of 7

Drawing Number
1008811
010101 D7

MWH

\\Usadet1s02\jobs\01_INDUSTRIAL-OTHER\3868-Wayne RR\5-CADD\SAPR 30\Fig 07_4 Cont 07.dwg Aug/23/10

NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN. DRAWING NO. 24537, DATED 05-28-92 AND SITE SURVEY CONDUCTED BY AYRES, LEWIS, NORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1992.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASG-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
4. INDICATED CONTOURS BASED ON AVAILABLE MONTHLY WATER ELEVATIONS.
5. WATER ELEVATIONS FOR MW-83AD SHOWN TO INDICATE VERTICAL GRADIENT.
6. SAMPLE RESULTS ARE REPORTED IN MICROGRAMS PER LITER (ug/L). RED RESULTS EXCEED PRELIMINARY REMEDIATION GOALS (PRGs).

LEGEND

- RECOVERY WELL LOCATION
- MONITORING WELL LOCATION
- PIEZOMETER LOCATION
- GAUGE POINT LOCATION
- * NOT USED IN CONTOURING
- 808.5 — GROUNDWATER CONTOUR (IN FEET) REFERENCED TO MEAN SEA LEVEL; CONTOUR INTERVAL = 0.5 FEET
- APPARENT HORIZONTAL GROUNDWATER FLOW DIRECTION

GROUNDWATER TREATMENT SYSTEM INFLUENT (ug/L)

	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
1,1-DCA	19	15	19	20	14	17
1,2-DCA	ND	ND	ND	ND	ND	ND
1,1-DCE	3	3	7	5	6	4
cis-1,2-DCE	1,460	1,090	1,210	1,590	1,230	1,570
trans-1,2-DCE	20	13	17	28	24	26
TCE	241	233	275	633	567	689
VC	210	178	214	234	149	169

RECOVERY WELL DATA (ug/L)

	RW1 (Oct 2009)	RW2 (Oct 2009)	RW3 (Oct 2009)	RW4 (Oct 2009)	RW5 (Oct 2009)	RW6 (Oct 2009)	RW7 (Oct 2009)	RW8 (Oct 2009)	RW9 (Oct 2009)	RW10 (Oct 2009)
1,1-DCA	75	12	3	ND	4.3	10	ND	46	ND	31
1,1-DCE	ND	ND	ND	ND	ND	ND	ND	7.9	5.0	6.7
cis-1,2-DCE	51	32	75	128	1,130	1,060	285	3,190	1,640	3,080
trans-1,2-DCE	ND	1.5	2.1	13	12.6	12	6	48	16	44
1,2-DCP	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TCE	3.3	ND	68	ND	26	171	168	818	370	289
VC	20	1.8	6.5	2.1	264	4.3	35	282	169	277

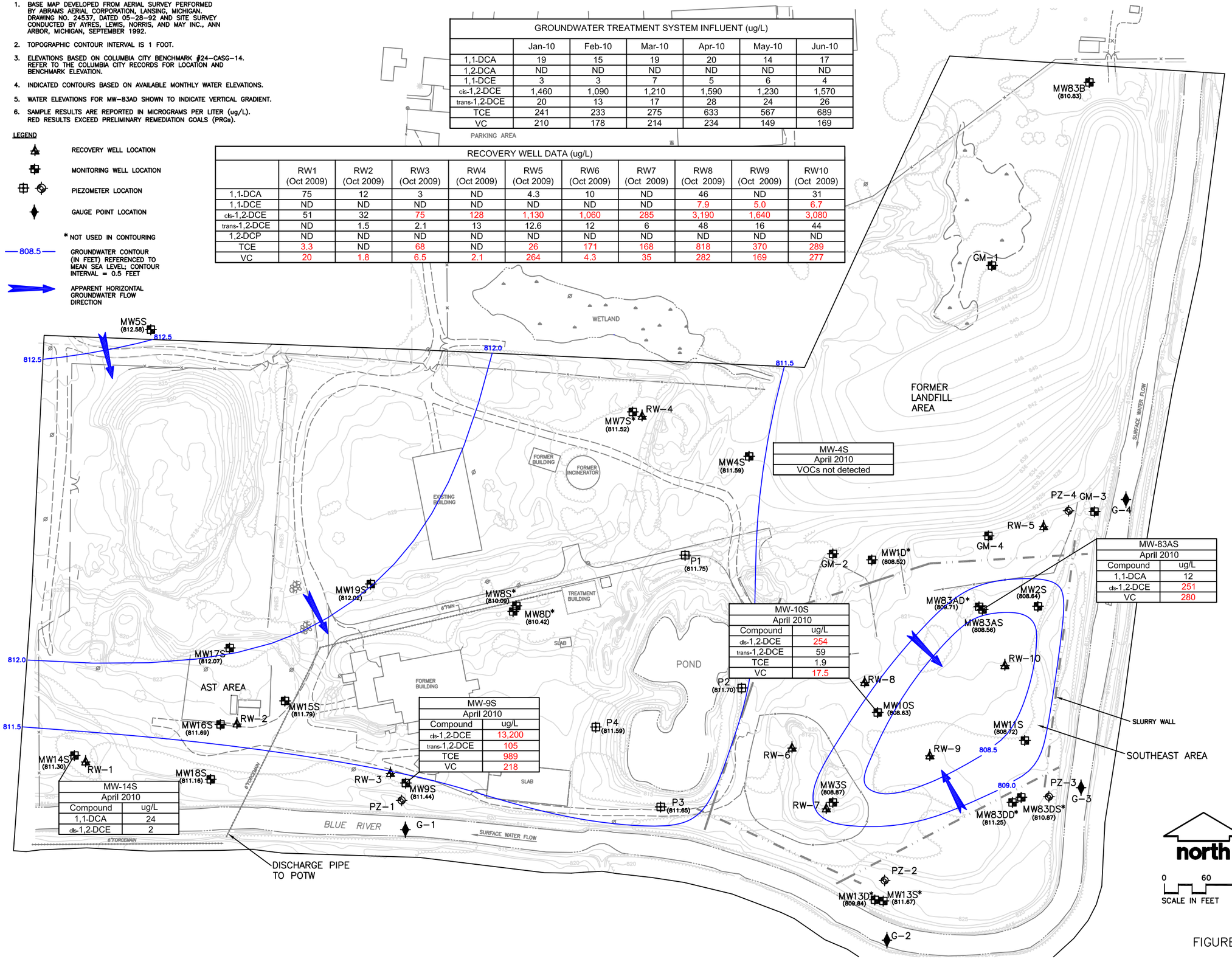


FIGURE 7-5

Developed By BRT
Approved By BRT
Drawn By ATF
Date 7/26/10
Reference
Consultants

Releases | Issuance/Revisions | Date | By | Apprvd.

ANALYTICAL RESULTS SUMMARY - APRIL 2010

SEMI-ANNUAL PROGRESS REPORT 30
WAYNE RECLAMATION & RECYCLING, INC.
COLUMBIA CITY, INDIANA

Printed

Sheet Number 5 of 7
Drawing Number 1008811 010101 D8

MWH

\\Usadet1s02\jobs\01_INDUSTRIAL-OTHER\3868-Wayne RR\5-CADD\SAPR 30\Fig 07_5 Cont 07.dwg Aug/23/10

NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN. DRAWING NO. 24537, DATED 05-28-92 AND SITE SURVEY CONDUCTED BY AYRES, LEWIS, NORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1992.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASG-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
4. INDICATED CONTOURS BASED ON AVAILABLE MONTHLY WATER ELEVATIONS.
5. WATER ELEVATIONS FOR MW-83AD SHOWN TO INDICATE VERTICAL GRADIENT.

LEGEND

- RECOVERY WELL LOCATION
- MONITORING WELL LOCATION
- PIEZOMETER LOCATION
- GAUGE POINT LOCATION
- * NOT USED IN CONTOURING
- —809.0— GROUNDWATER CONTOUR (IN FEET) REFERENCED TO MEAN SEA LEVEL; CONTOUR INTERVAL = 0.5 FEET
- APPARENT HORIZONTAL GROUNDWATER FLOW DIRECTION

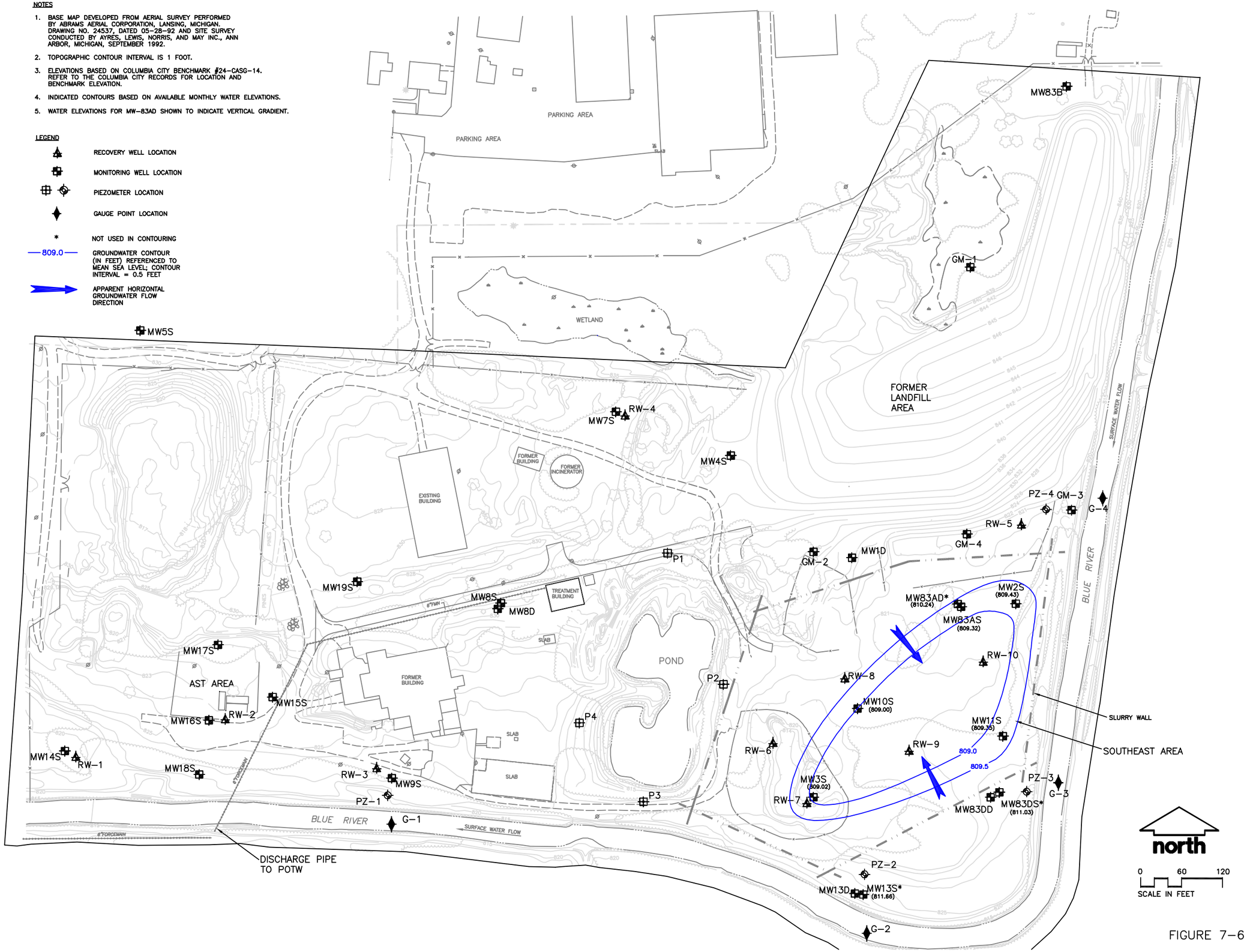


FIGURE 7-6

Developed By	BRT
Drawn By	DTM
Approved By	BRT
Date	7/26/10
Reference	
Consultants	
Approvd.	
By	
Date	
Issuance/Revisions	
Releases	

GROUNDWATER CONTOURS - MAY 2010

SEMI-ANNUAL PROGRESS REPORT 30
WAYNE RECLAMATION & RECYCLING, INC.
COLUMBIA CITY, INDIANA

Printed

Sheet Number
6 of 7

Drawing Number
1008811
010101 D9

MWH

U:\01_INDUSTRIAL-OTHER\3868-Wayne RR\5-CADD\SAPR 30\Fig 07_6 Cont 07.dwg Jul/26/10

NOTES

1. BASE MAP DEVELOPED FROM AERIAL SURVEY PERFORMED BY ABRAMS AERIAL CORPORATION, LANSING, MICHIGAN. DRAWING NO. 24537, DATED 05-28-92 AND SITE SURVEY CONDUCTED BY AYRES, LEWIS, NORRIS, AND MAY INC., ANN ARBOR, MICHIGAN, SEPTEMBER 1992.
2. TOPOGRAPHIC CONTOUR INTERVAL IS 1 FOOT.
3. ELEVATIONS BASED ON COLUMBIA CITY BENCHMARK #24-CASG-14. REFER TO THE COLUMBIA CITY RECORDS FOR LOCATION AND BENCHMARK ELEVATION.
4. INDICATED CONTOURS BASED ON AVAILABLE MONTHLY WATER ELEVATIONS.
5. WATER ELEVATIONS FOR MW-83AD SHOWN TO INDICATE VERTICAL GRADIENT.

LEGEND

- RECOVERY WELL LOCATION
- MONITORING WELL LOCATION
- PIEZOMETER LOCATION
- GAUGE POINT LOCATION
- * NOT USED IN CONTOURING
- 808.5 GROUNDWATER CONTOUR (IN FEET) REFERENCED TO MEAN SEA LEVEL; CONTOUR INTERVAL = 0.5 FEET
- APPARENT HORIZONTAL GROUNDWATER FLOW DIRECTION

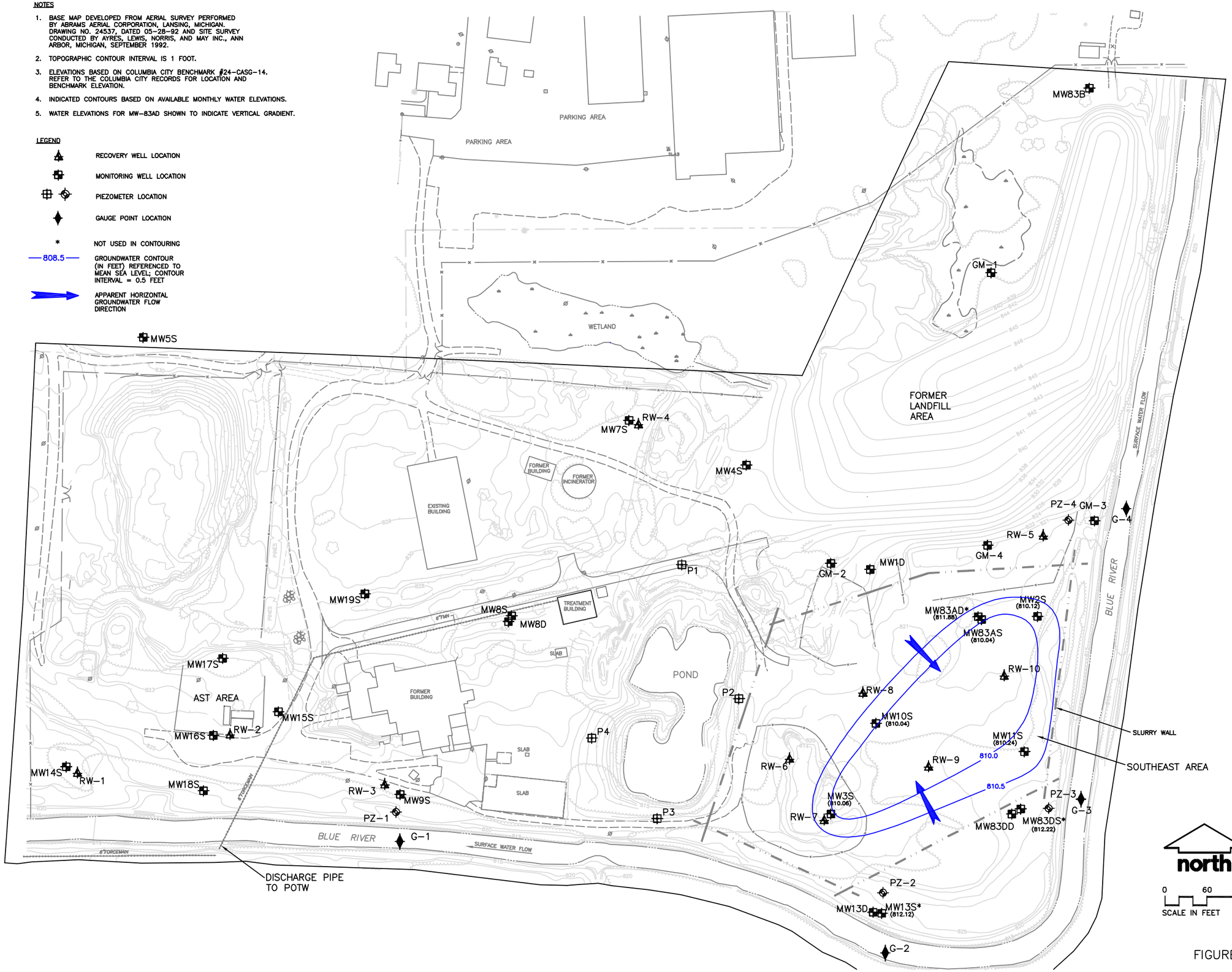


FIGURE 7-7

Developed By	BRT
Approved By	BRT
Drawn By	DTM
Date	7/26/10
Reference	
Consultants	
Approvd.	
By	
Date	
Issuance/Revisions	
Releases	

GROUNDWATER CONTOURS - JUNE 2010

SEMI-ANNUAL PROGRESS REPORT 30
WAYNE RECLAMATION & RECYCLING, INC.
COLUMBIA CITY, INDIANA

Printed

Sheet Number
7 of 7

Drawing Number
1008811
010101 D10

MWH

J:\01_INDUSTRIAL-OTHER\3868-Wayne RR\5-CADD\SAPR 30\Fig 07_7 Cont 07.dwg Jul/26/10

Figure 8
Cumulative Volatile Organic Compounds Removed From Site - Soil and Groundwater Remediation Systems
Wayne Reclamation & Recycling

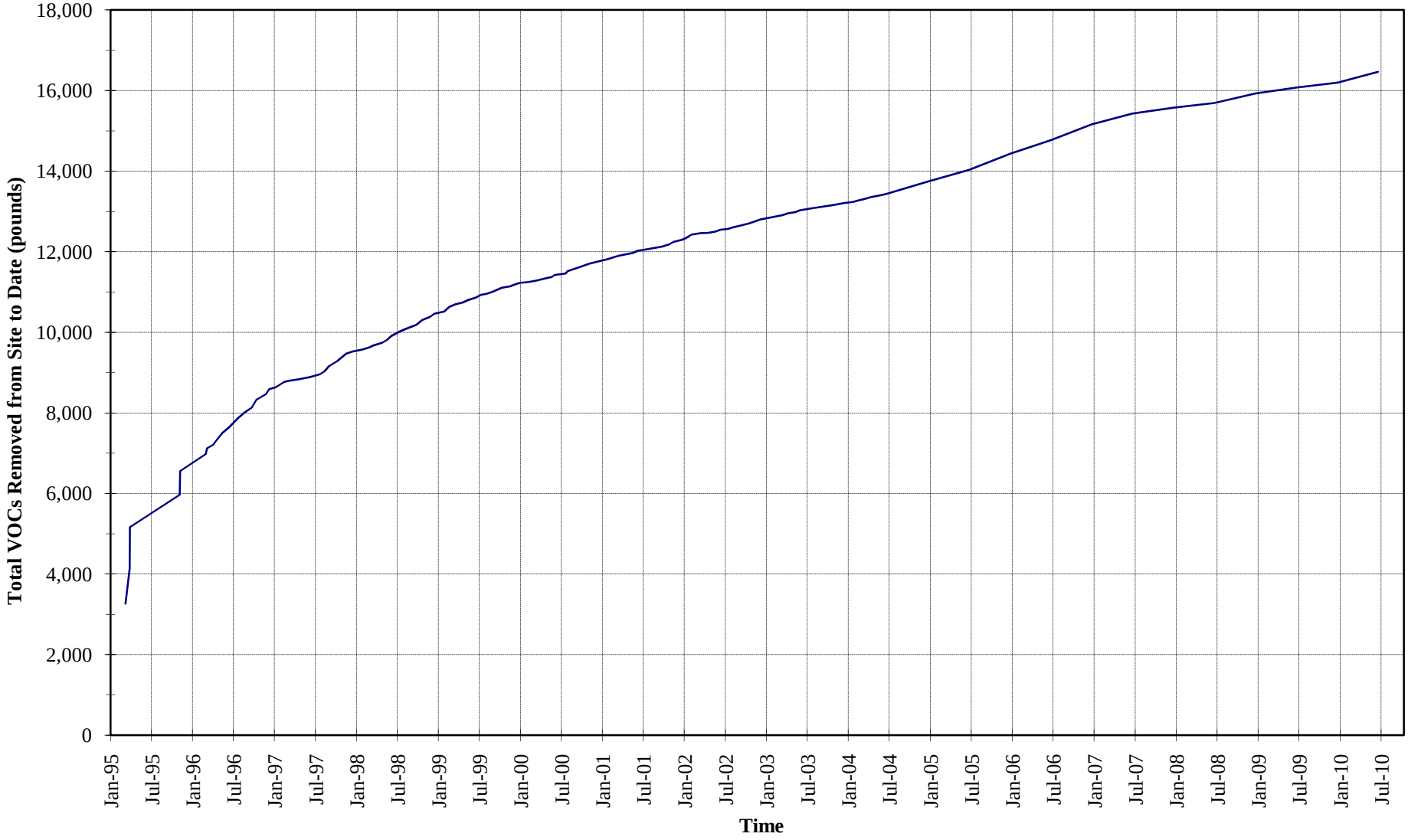
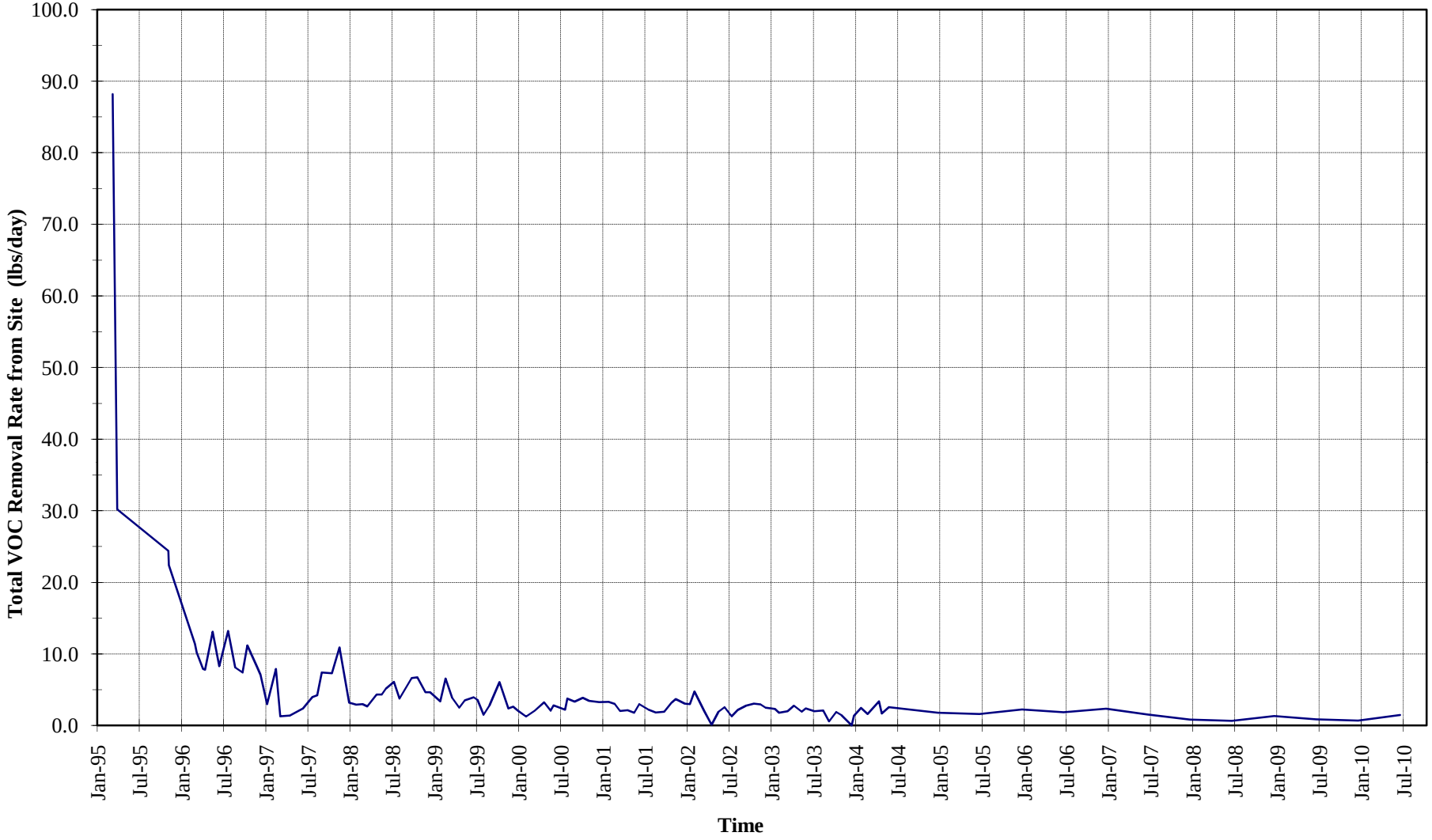


Figure 9
Summary of Site Volatile Organic Compound Removal Rates - Soil and Groundwater Remediation Systems
Wayne Reclamation & Recycling



APPENDIX A

LANDFILL SAMPLING DATA, APRIL 2010 SAMPLING EVENT

BURGESS & NIPLE

Mr. Jeffrey P. Walker
Outside Operations Manager
City of Columbia City
316 S. Towerview Drive
Columbia City, IN 46725

Re: City of Columbia City
Wayne Reclamation & Recycling Facility
April 2010 Groundwater Sampling Event

May 21, 2010

Burgess & Niple, Inc.
5085 Reed Road
Columbus, OH 43220
614 459.2050
Fax 614 451.1385

Dear Mr. Walker:

Burgess & Niple, Inc. (B&N) has completed this report to provide you with additional information that is not included in the formal report submitted to the U.S. Environmental Protection Agency (EPA), as required by the facility's *Operation and Maintenance Sampling and Analysis Plan* (OMSAP) (Geraghty & Miller, Inc., October 1993). B&N completed groundwater sampling and analysis of four monitoring wells located at the Wayne Reclamation and Recycling Facility (WRRF) in the City of Columbia City, Indiana on April 27, 2010. The following sections summarize the results of the most recent sampling event. Figure 1 displays the groundwater monitoring network. Attachment 1 includes the field-sampling sheets and chain-of-custody form completed during the most recent sampling event. Attachment 2 contains the analytical laboratory report submitted by TestAmerica Analytical Testing Corporation (TestAmerica). Time-versus-concentration plots generated from the groundwater quality data are presented in Attachment 3.

METHODS

Groundwater elevations were measured at each well using an electronic water-level measuring tape. The depth to the bottom of each well was also measured. Measurements were made to the nearest 0.01 foot and recorded on field-sampling sheets. The well stick-up was measured to the nearest 0.1 foot and recorded.

Field-sampling personnel completed a wellhead inspection of each well documenting any evidence of activity near the well, the condition of the protective casing, any insect or rodent intrusions, or other notable conditions. Information from this evaluation is included on the field-sampling sheets included in Attachment 1.

Disposable polyethylene bailers were used to purge each well of a minimum of five well volumes prior to sampling. Field parameters (pH, specific conductance, temperature, and turbidity) were measured and recorded during well purging. Sampling began once at least five well volumes were removed and the field parameters stabilized (within ±10 percent). Purge water was disposed of on the ground away from each well, as specified by the facility's OMSAP.

Groundwater samples were collected from the four monitoring wells (GM-1, GM-2, GM-3, and GM-4). Field personnel filled the sample containers and placed them in a cooler that was chilled with ice to 4 degrees Celsius (°C) or less. One duplicate was collected at GM-4 by splitting each bailer of water between two sets of sample containers. One field blank was collected to evaluate possible cross contamination from the field-sampling equipment. Distilled water was poured into a clean and unused disposable bailer and transferred into the sample containers. The laboratory prepared one trip blank (two 40-milliliter [ml] vials of deionized water) and sent it along with the sample containers. Groundwater samples were delivered to TestAmerica for analysis.

TestAmerica analyzed the groundwater samples from the four monitoring wells, the duplicate sample, and the equipment blank for:

- ammonia (Method 350.1/SM 18 4500 NH3 H);
- chloride (Method 9056A);
- chemical oxygen demand (COD) (Hach 8000);
- sodium (Method 6010B); and
- volatile organic compounds (VOCs) (Method 8260B).

The trip blank was analyzed for VOCs only.

RESULTS

Table 1 includes all historical groundwater quality results reported for the WRRF, including the results of the April 27, 2010 groundwater sampling event. VOCs included in Table 1 are only those parameters historically detected in monitoring wells GM-1, GM-2, GM-3, and GM-4. All other VOCs have been reported below laboratory detection limits.

All but two of the inorganic concentrations reported for GM-1, GM-2, GM-3, and GM-4 during the most recent groundwater sampling event were within the respective range of historical results. The sodium concentration of 8.15 milligrams per liter (mg/l) is the lowest detected historical concentration for GM-2 and the ammonia concentration of 0.341 mg/l is the lowest detected historical concentration for GM-3.

There were no VOCs reported above the laboratory detection limits in either GM-1 or GM-2 during the April 2010 sampling event. This is consistent with historical results for these two wells. All detected VOCs in GM-3 and GM-4 were within the respective range of historical concentrations with the exception of a new historical high concentration of vinyl chloride in GM-4.

Time-versus-concentration plots were constructed for ammonia, chloride, COD, sodium, and each of the historically detected VOCs. Historical results from each of the monitoring wells are included on each plot for comparative purposes. No increasing trends in inorganic constituents are evident, except for an increasing trend for COD in GM-3 from April 2008 through October 2009. Please note April 2010 COD concentration of 25.9 mg/l in GM-3 is the lowest detected concentration in this well since October 2003.

Since the year 2000, it appears that each of the detected VOCs in GM-3 and GM-4 have stabilized, or depict a decreasing trend in concentration, with the exception of trichloroethene (TCE) and vinyl chloride in GM-4.

The following comments are made for the organic chemicals of concern (COCs) in wells GM-3 and GM-4 that have been historically detected above U.S. EPA Maximum Contaminant Levels (MCLs):

- GM-3 (cis-1,2-DCE) – Since October 2001, concentrations have shown an overall decreasing trend. The April 2010 concentration of 10.8 μg/l is the lowest historical concentration for this well and is below the primary MCL of 70 μg/l for cis-1,2-DCE.

- GM-3 (vinyl chloride) – concentrations have been reported above the MCL of 2 μg/l for each sampling event since June 1995, with the exception of the January 1996 sampling event which reported a non-detect value of <1.0 μg/l. The historical maximum concentration of 54 μg/l was reported in October 2001. Since then, concentrations of vinyl chloride have indicated an overall decreasing trend with the latest concentration reported at 8.53 μg/l in April 2010.

- GM-4 (cis-1,2-DCE) – concentrations spiked to a maximum of 570 μg/l in June 2001. Since then, concentrations have shown a decreasing trend with latest result of 149 μg/l reported for April 2010, which is above the primary MCL of 70 μg/l. Concentrations appear to have stabilized since April 2007.

- GM-4 (1,1,1-trichloroethane [TCA]) – in June 2001 concentrations spiked to 610 μg/l. Since 2001, concentrations appear to show an overall decreasing trend with the latest concentration detected at 150 μg/l which is below the primary MCL of 200 μg/l.

- GM-4 (TCE) – concentrations for the past eight semiannual sampling events overall appear to be trending slightly downward as concentrations have decreased from 1,080 micrograms per liter (μg/l) in October 2006 to 952 μg/l in April 2010. However, concentrations of the past four semiannual monitoring events have slightly increased indicating concentrations appear to be rebounding. The TCE concentration continues to be above the U.S. Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL) of 5 μg/l for TCE.

- GM-4 (vinyl chloride) – concentrations indicate an overall increasing trend since October 2005. The April 2010 laboratory result of 46.7 μg/l is the highest historical concentration reported for this well. The primary MCL for vinyl chloride is 2 μg/l.

A concentration of ammonia was detected in the equipment blank sample at 0.0580 milligrams per liter (mg/l). As stated previously, the equipment blank sample is collected by pouring distilled water into a clean and unused disposable polyethylene bailer and transferred into the laboratory prepared sample containers. The equipment blank sample was collected prior to purging groundwater from GM-3 (see remarks and field parameter measurement times documented on the field sampling sheets for GM-3 in Attachment 1). GM-3 was purged and sampled with the same bailer as the equipment

blank sample was collected from. The April 2010 ammonia concentration reported for GM-3 (0.0.341 mg/l) is the lowest historical ammonia concentration for this well and below the U.S. EPA Lifetime Human Health Advisory standard. Based on this information, B&N concludes the detected concentration of ammonia in the equipment blank sample to be an anomaly and not to have an adverse effect on the sample collected from GM-3.

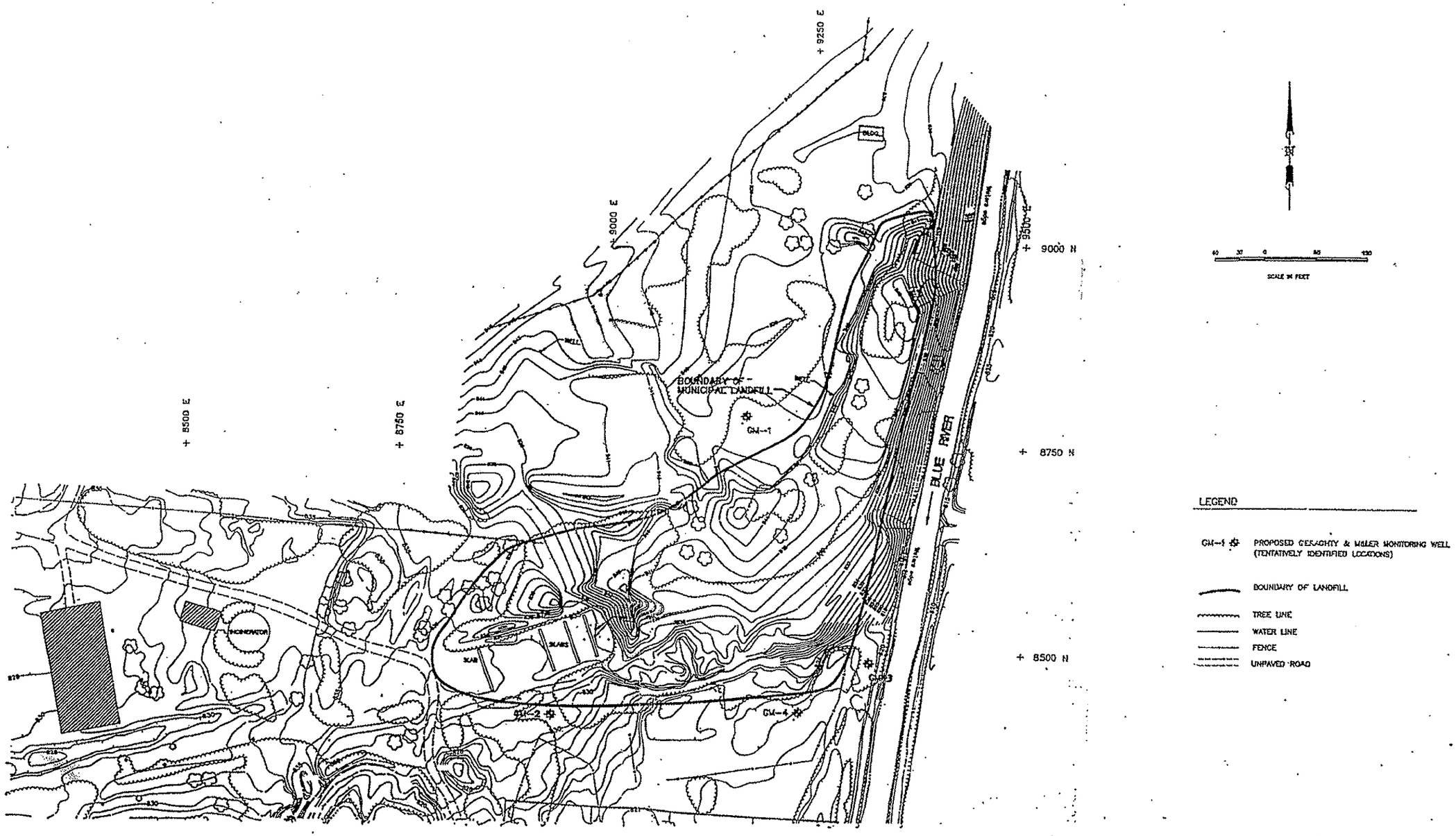
Table 2 includes historical groundwater elevations and other well data recorded at the facility. Groundwater elevation data prior to December 1999 was not available. Groundwater elevations increased between October 2009 and April 2010 from a minimum of 0.98 foot at GM-1 to a maximum of 2.67 feet at GM-2.

If you have any questions or comments, please do not hesitate to call.

Sincerely,

Michael R. Akins
Project Geologist

MRA:cmc
Attachments
copy: Mr. Howard Lowen, Columbia City (w/att)
Mr. Bruce Hamilton, Indiana Dept. of Environmental Management (w/att)
Ms. Diane McCausland, Engineering Management, Inc. (w/att)



SOURCES: DONAR SURVEYORS AND WARZYN ENGINEERING, INC.

GERAGHTY & MILLER, INC.
Environmental Services

DRAWING CONFIDENTIAL: THIS DRAWING AND ALL INFORMATION CONTAINED THEREON IS AND SHALL REMAIN THE PROPERTY OF GERAGHTY & MILLER, INC. AS AN INSTRUMENT OF PROFESSIONAL SERVICE. THIS INFORMATION SHALL NOT BE USED IN WHOLE OR IN PART WITHOUT THE FULL KNOWLEDGE AND PRIOR WRITTEN CONSENT OF GERAGHTY & MILLER, INC.

SCALE VERIFICATION
THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING
USE TO VERIFY FIGURE REPRODUCTION SCALE

REV. NO.	DATE	DESCRIPTION	BY	APPR.

PROJECT NO.: [illegible] | FILE NO.: [illegible]
DRAWING NO.: [illegible] | PLOT SCALE: 1=40
DRAFTED BY: [illegible] | DATE: MARCH 8, 1983
CHECKED BY: | DATE:
APPROVED BY: | DATE:
LAST DRAWING BY: [illegible] | DATE: [illegible]

MONITORING WELL LOCATION MAP
POST-CLOSURE LANDFILL MONITORING
WAYNE RECLAMATION AND RECYCLING SITE
COLUMBIA CITY, INDIANA

FIGURE
1

Table 1
Wayne Reclamation and Recycling Facility
City of Columbia City
Groundwater Monitoring Program

Parameter	Units	MCL[1]	GM-1																														
			Jun-95	Jan-96	Jun-96	Jan-97	Jun-97	Dec-97	Jun-98	Jan-99	Jun-99	Dec-99	Jun-00	Dec-00	Jun-01	Oct-01	Apr-02	Oct-02	Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Oct-05	Apr-06	Oct-06	Apr-07	Oct-07	Apr-08	Oct-08	Apr-09	Oct-09	Apr-10
Inorganics																																	
Ammonia	mg/l	30 (HHA)	0.43	0.6	0.58	0.25	0.41	0.28	1.7	0.587	0.45	0.48	1.08	1.20	1.41	1.09	1.14	1.24	0.96	0.94	1.04	0.83	0.59	0.83	0.71	0.702	0.809	0.705	0.660	0.708	0.666	0.870	0.662
Chloride	mg/l	250 (S)	130	120	80	48	39	35	80	64	31	37	26	23	46	39	44	31	31	37	51	51	43	43.6	50	38.0	53.0	64.3	42.4	45.4	37.7	58.4	47.8
Chemical Oxygen Demand (COD)	mg/l	--	130	55	87	100	39	25	38	74	22	36	27	45	13	29	52	37	<5	14	5	31	9	30	24	17.6	<50.0	27.2	20.8	<50.0	<50.0	<50.0	28.1
Sodium	mg/l	--	60	59	54	26	22	19	18	22.8	18	15	19.2	17.5	19.0	22.9	22.2	21.5	17.6	17.1	23.1	25.5	22.3	17.7	21.3	17.6	26.2	37.9	24.5	25.4	18.4	27.0	21.2
Volatile Organic Compounds																																	
2-Butanone (Methyl ethyl ketone)	ug/l	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2	<10	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5
1,1-Dichloroethane	ug/l	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	ug/l	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,2-Dichloroethene	ug/l	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<1.0	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	ug/l	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	ug/l	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<5.0	<5.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	ug/l	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	ug/l	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichloroethene	ug/l	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Vinyl Chloride	ug/l	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<2	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Field Parameters																																	
pH	S.U.	6.5-8.5 (S)	--	--	--	--	--	--	--	--	--	--	6.90	7.58	6.94	7.49	7.55	7.11	7.17	7.40	6.72	6.91	7.24	7.14	7.31	6.84	6.76	7.42	7.34	6.98	6.85	6.85	6.64
Specific Conductance	umhos/cm	--	--	--	--	--	--	--	--	--	--	700	832	784	541	730	605	487	667	431	762	686	614	604	833	640	982	722	761	700	640	903	331
Temperature	°C	--	--	--	--	--	--	--	--	--	--	11.1	12.9	10.2	11.9	11.3	11.3	11.7	11.7	11.5	12.0	11.8	11.7	12.4	6.7	12.8	6.4	12.5	12.4	11.2	11.7	12.7	11.3
Turbidity	NTU	5 (AL)	--	--	--	--	--	--	--	--	--	--	111	455	133	182	140	664	55	258	44	134	282	105	113	75	228	86	165	59	156	76	207

All other VOCs have been historically below laboratory detection limits.
[1] = U.S. EPA Maximum Contaminant Level
(HHA) = U.S. EPA Lifetime Human Health Advisory
(S) = Secondary U.S. EPA MCL
(AL) = U.S. EPA Action Level
Duplicate samples collected at GM-4.
-- = Not Applicable
* = MEK contaminated deionized water.

Table 1 (continued)
Wayne Reclamation and Recycling Facility
City of Columbia City
Groundwater Monitoring Program

Parameter	Units	MCL[1]	GM-2																														
			Jun-95	Jan-96	Jun-96	Jan-97	Jun-97	Dec-97	Jun-98	Jan-99	Jun-99	Dec-99	Jun-00	Dec-00	Jun-01	Oct-01	Apr-02	Oct-02	Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Oct-05	Apr-06	Oct-06	Apr-07	Oct-07	Apr-08	Oct-08	Apr-09	Oct-09	Apr-10
Inorganics																																	
Ammonia	mg/l	30 (HHA)	2.6	2.6	2.4	1.6	3	2.6	3	2.64	1.7	1.8	1.99	1.80	2.03	2.10	1.46	1.43	1.35	1.30	1.28	1.18	1.13	1.09	0.98	0.958	1.08	0.973	1.06	1.10	0.886	0.954	0.928
Chloride	mg/l	250 (S)	18	15	19	16	16	22	19	10	7	12	16	10	12	14	20	14	15	50	11	11	15	20.1	13	12.0	10.0	10.2	10.9	7.93	12.2	7.94	8.27
Chemical Oxygen Demand (COD)	mg/l	--	30	<20	<20	<20	<20	<20	20	38	15	<15	17	8	<1	18	26	12	<5	<5	15	36	<5	28	14	10.1	100	11.1	14.5	<50.0	<50.0	<50.0	<10.0
Sodium	mg/l	--	20	15	17	16	13	19	10	11.2	10.1	12.3	12.1	10.5	11.3	14.4	14.4	12.2	12.0	12.2	10.1	9.12	10.2	10.0	10.7	10.5	11.1	10.9	10.5	9.06	11.5	8.38	8.15
Volatile Organic Compounds																																	
2-Butanone (Methyl ethyl ketone)	ug/l	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2	<10	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5
1,1-Dichloroethane	ug/l	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	ug/l	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,2-Dichloroethene	ug/l	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<1.0	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	ug/l	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	ug/l	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	ug/l	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	ug/l	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichloroethene	ug/l	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Vinyl Chloride	ug/l	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<2	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Field Parameters																																	
pH	S.U.	6.5-8.5 (S)	--	--	--	--	--	--	--	--	--	--	7.13	7.65	7.06	7.59	7.41	7.10	7.32	7.61	7.05	6.83	7.33	7.04	7.24	6.78	6.89	7.26	7.17	6.99	6.99	6.93	6.61
Specific Conductance	umhos/cm	--	--	--	--	--	--	--	--	--	--	700	818	715	524	936	804	586	826	458	723	667	776	744	863	896	905	756	891	696	716	698	167
Temperature	°C	--	--	--	--	--	--	--	--	--	--	11.3	12.9	10.6	11.4	10.2	10.6	11.5	12.1	12.7	12.0	12.3	11.9	12.3	6.1	12.4	10.0	12.5	12.1	11.1	10.9	12.6	11.0
Turbidity	NTU	5 (AL)	--	--	--	--	--	--	--	--	--	--	9	13	22	10.5	7.44	16.0	13	10	12	11	11	16	15	13	12	13	9.0	20	1.0	0.27	9.00

All other VOCs have been historically below laboratory detection lim
[1] = U.S. EPA Maximum Contaminant Level
(HHA) = U.S. EPA Lifetime Human Health Advisory
(S) = Secondary U.S. EPA MCL
(AL) = U.S. EPA Action Level
Duplicate samples collected at GM-4.
-- = Not Applicable
* = MEK contaminated deionized water.

Table 1 (continued)
Wayne Reclamation and Recycling Facility
City of Columbia City
Groundwater Monitoring Program

Parameter	Units	MCL[1]	GM-3																															
			Jun-95	Jan-96	Jun-96	Jan-97	Jun-97	Dec-97	Jun-98	Jan-99	Jun-99	Dec-99	Jun-00	Dec-00	Jun-01	Oct-01	Apr-02	Oct-02	Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Oct-05	Apr-06	Oct-06	Apr-07	Oct-07	Apr-08	Oct-08	Apr-09	Oct-09	Apr-10
Inorganics																																		
Ammonia	mg/l	30 (HHA)	6	4.9	3.2	0.98	1.4	1	1.4	1.15	0.6	0.8	0.59	0.79	0.52	0.62	0.51	0.76	0.52	0.55	0.45	0.50	0.42	0.46	0.46	0.433	0.393	0.408	0.759	0.439	0.356	0.662	0.341
Chloride	mg/l	250 (S)	23	14	25	32	20	40	25	42	24	20	29	44	22	28	24	32	67	27	42	21	24	51.7	35	27.0	25.0	26.2	21.7	21.4	38.5	24.4	37.1
Chemical Oxygen Demand (COD)	mg/l	--	120	80	38	33	<20	<20	25	24	22	<15	28	10	14	18	22	15	5	20	33	43	37	46	109	33.0	<50.0	50	49.3	59.6	74.8	92.9	25.9
Sodium	mg/l	--	26	14	14	17	11	16	10	19.2	16.4	16.5	17.7	21.5	15.8	15.0	12.2	20.4	36.2	19.7	15.7	17.2	12.5	21.8	22.3	19.9	17.2	17.8	19.4	14.4	25.5	19.2	17.5
Volatile Organic Compounds																																		
2-Butanone (Methyl ethyl ketone)	ug/l	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2	<10	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5
1,1-Dichloroethane	ug/l	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	ug/l	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,2-Dichloroethene	ug/l	70	84	33	26	17	17	36	94	51	85.6	60.7	110	82	61	150	85	100	52	72	59	17	57	55	34.4	41.1	27.0	32.3	15.4	22.3	12.6	13.4	10.8
trans-1,2-Dichloroethene	ug/l	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.6	0.9	<0.5	<1.0	<5	<1.0	<1.0	1	<1.0	2	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	ug/l	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	ug/l	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	ug/l	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichloroethene	ug/l	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Vinyl Chloride	ug/l	2	10	<1.0	18	42	33	45	32	22.6	22.3	16.6	26	28	24	54	33	41	19	40	27	31	17	20	12.6	32.2	19.9	26.8	14.4	22.7	9.78	10.7	8.53
Field Parameters																																		
pH	S.U.	6.5-8.5 (S)	--	--	--	--	--	--	--	--	--	--	7.74	7.88	7.08	7.99	6.89	7.50	7.99	8.03	7.86	7.19	7.72	7.51	7.53	6.96	7.38	7.79	7.87	7.41	7.24	7.36	7.20
Specific Conductance	umhos/cm	--	--	--	--	--	--	--	--	--	--	650	615	767	382	635	410	445	739	356	560	579	416	602	548	636	612	568	504	578	528	661	132
Temperature	°C	--	--	--	--	--	--	--	--	--	--	16.9	13.4	12	8.5	14.6	8.6	16.7	6.7	14.3	8.4	15.7	7.7	17.7	3.4	12.7	6.5	17.4	8.3	15.0	7.5	15.4	8.10
Turbidity	NTU	5 (AL)	--	--	--	--	--	--	--	--	--	--	45	34	13	30.8	29.2	28.0	16	140	45	299	555	334	>1,000	726	1,000	907	1,000	1,000	686	470	901

All other VOCs have been historically below laboratory detection lim
[1] = U.S. EPA Maximum Contaminant Level
(HHA) = U.S. EPA Lifetime Human Health Advisory
(S) = Secondary U.S. EPA MCL
(AL) = U.S. EPA Action Level
Duplicate samples collected at GM-4.
-- = Not Applicable
* = MEK contaminated deionized water.

Table 1 (continued)
Wayne Reclamation and Recycling Facility
City of Columbia City
Groundwater Monitoring Program

Parameter	Units	MCL[1]	GM-4																															
			Jun-95	Jan-96	Jun-96	Jan-97	Jun-97	Dec-97	Jun-98	Jan-99	Jun-99	Dec-99	Jun-00	Dec-00	Jun-01	Oct-01	Apr-02	Oct-02	Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Oct-05	Apr-06	Oct-06	Apr-07	Oct-07	Apr-08	Oct-08	Apr-09	Oct-09	Apr-10
Inorganics																																		
Ammonia	mg/l	30 (HHA)	0.37	0.33	0.34	0.28	0.13	0.37	3.1	0.697	0.29	0.24	0.32	0.46	0.36	0.33	0.29	0.25	0.31	0.23	0.22	0.19	0.30	0.35	0.37	0.546	0.554	0.277	0.262	0.208	0.279	0.360	0.261
Chloride	mg/l	250 (S)	23	41	12	8.3	11	11	12	16	4.5	19	7	8	5	6	9	4	7	6	5	5	4	4.2	<5	14.0	5.00	2.22	2.46	2.62	2.85	2.65	2.51
Chemical Oxygen Demand (COD)	mg/l	--	220	65	47	55	20	<20	20	20	20	<15	13	2	6	28	13	8	<5	<5	10	22	<5	39	24	18.6	<50.0	18	13.6	<50.0	<50.0	<50.0	<10.0
Sodium	mg/l	--	31	41	22	25	18	26	25	40	21	12	17.6	27.8	14.6	15.1	10.2	11.6	11.0	7.86	8.98	8.43	7.86	16.0	13.7	21.2	9.16	8.9	7.12	7.18	7.43	9.64	7.54
Volatile Organic Compounds																																		
2-Butanone (Methyl ethyl ketone)	ug/l	--	<10	150	<10	<10	<10	<10	<10	<10	<10	<33.3	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2	<10	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5
1,1-Dichloroethane	ug/l	--	<1.0	<1.0	<1.0	10	12	13	11	16	14	13	19	18	21	25	17	20	26	20	15	14	14	21	20.6	23.8	17.2	18.5	14.5	17.0	15.6	14.9	17.9
1,1-Dichloroethene	ug/l	7	<0.5	<0.5	<1.0	<1.0	<0.5	<0.5	3.2	5.2	5	3.7	<5	4.2	7.0	7.1	6.0	5.1	6.2	4.9	3.8	6.1	<2	4.0	4.2	4.92	4.22	3.48	3.03	3.77	2.99	2.40	3.59
cis-1,2-Dichloroethene	ug/l	70	130	140	190	260	250	320	250	323	243	250	190	270	570	250	230	180	190	98	110	100	110	110	173	228	141	143	120	117	122	115	149
trans-1,2-Dichloroethene	ug/l	100	<1.0	<1.0	<1.0	12	14	16	13	16.3	13	14	13	14	18	20	14	14	15	11	8	8	6.9	11	11.6	14.9	12.0	9.44	8.64	9.72	8.45	7.91	10.3
1,2-Dichloropropane	ug/l	5	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<3.3	<5.0	<5.0	6	<1.0	<1.0	<1.0	<1	4	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	ug/l	200	180	<1.0	200	140	140	210	180	144	193	143	170	210	610	260	330	380	260	94	180	180	180	180	229	248	216	220	188	191	169	137	150
1,1,2-Trichloroethane	ug/l	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<3.3	<5	<0.5	0.8	0.9	<0.5	0.8	0.8	0.7	0.6	<0.5	<2	<0.5	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichloroethene	ug/l	5	410	380	530	280	430	490	500	462	556	435	440	640	1,900	860	870	1,300	840	400	630	740	730	830	980	1,080	953	939	851	844	891	898	952
Vinyl Chloride	ug/l	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.8	5.2	3.7	4.9	4	8	6	7	5	2	4	2	3	3	3.6	<1	11.2	11.0	14.3	13.6	19.0	34.6	26.8	28.5	46.7
Field Parameters																																		
pH	S.U.	6.5-8.5 (S)	--	--	--	--	--	--	--	--	--	--	7.34	7.02	6.99	7.51	7.23	7.23	7.35	7.70	7.29	6.92	7.45	7.10	7.24	6.75	7.07	7.36	7.29	7.13	7.18	6.97	6.71
Specific Conductance	umhos/cm	--	--	--	--	--	--	--	--	--	--	690	964	1,141	553	880	660	471	729	413	732	619	618	827	922	1,199	964	794	720	664	584	724	155
Temperature	°C	--	--	--	--	--	--	--	--	--	--	15.2	12.9	11.9	10.8	12.1	9.9	13.1	11.1	12.4	10.8	13.3	11.3	13.7	5.4	10.7	9.5	13.7	11.3	12.0	10.3	13.3	10.2
Turbidity	NTU	5 (AL)	--	--	--	--	--	--	--	--	--	--	13	21	29	22.9	17.4	37.0	25	51	30	56	67	118	116	58	133	157	47	81	39	51	27

All other VOCs have been historically below laboratory detection lim
[1] = U.S. EPA Maximum Contaminant Level
(HHA) = U.S. EPA Lifetime Human Health Advisory
(S) = Secondary U.S. EPA MCL
(AL) = U.S. EPA Action Level
Duplicate samples collected at GM-4.
-- = Not Applicable
* = MEK contaminated deionized water.

Table 1 (continued)
Wayne Reclamation and Recycling Facility
City of Columbia City
Groundwater Monitoring Program

Parameter	Units	MCL[1]	Duplicate (GM-4)																					
			Dec-99	Jun-00	Dec-00	Jun-01	Oct-01	Apr-02	Oct-02	Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Oct-05	Apr-06	Oct-06	Apr-07	Oct-07	Apr-08	Oct-08	Apr-09	Oct-09	Apr-10
Inorganics																								
Ammonia	mg/l	30 (HHA)	0.25	0.31	0.40	0.34	0.34	0.29	0.26	0.36	0.26	0.22	0.20	0.27	0.36	0.38	0.542	0.444	0.274	0.293	0.267	0.295	0.301	0.305
Chloride	mg/l	250 (S)	19	7	7	5	8	8	4	7	5	5	5	4	4.9	<5	7.00	<5.00	2.31	2.25	2.43	2.88	2.67	2.52
Chemical Oxygen Demand (COD)	mg/l	--	<15	24	4	8	22	16	11	<5	<5	10	26	7	26	20	17.6	<50.0	21.2	11.1	<50.0	61.5	<50.0	<10.0
Sodium	mg/l	--	12.8	21.5	28.1	14.0	15.8	10.5	7.32	11.1	7.80	8.76	8.67	7.86	16.9	14.6	21.5	8.70	8.8	7.23	7.02	7.33	7.99	8.06
Volatile Organic Compounds																								
2-Butanone (Methyl ethyl ketone)	ug/l	--	<33.3	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2	<10	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5
1,1-Dichloroethane	ug/l	--	15	19	19	21	24	18	27	28	20	14	14	15	20	22.4	24.2	16.9	20.8	14.3	18.2	15.5	16.2	17.1
1,1-Dichloroethene	ug/l	7	4.5	<5	4.4	6.2	6.9	6.6	5.1	6.2	5.0	3.7	6.1	72.0	3.7	4.4	5.31	4.06	4.12	3.04	3.66	2.92	2.37	3.32
cis-1,2-Dichloroethene	ug/l	70	246	190	290	540	180	280	260	210	110	110	110	100	110	175	212	142	139	115	121	119	120	142
trans-1,2-Dichloroethene	ug/l	100	13	13	14	17	20	15	15	15	11	8	8	7.7	10.0	12.3	15.5	11.5	10.9	8.47	10.4	8.40	8.17	9.81
1,2-Dichloropropane	ug/l	5	<3.3	<5.0	<5.0	6	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	ug/l	200	143	170	230	580	180	410	410	270	99	170	190	170	180	237	249	205	231	187	201	192	134	142
1,1,2-Trichloroethane	ug/l	5	<3.3	<5	<0.5	0.8	0.9	<0.5	0.9	0.8	0.6	0.5	<0.5	<2.0	<0.5	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichloroethene	ug/l	5	434	440	650	1,800	610	840	1,400	820	440	620	780	710	860	1,030	1,070	884	971	833	926	1,000	843	890
Vinyl Chloride	ug/l	2	4.3	4	9	5	6	5	2	4	2	2	3	4.2	<1	12.1	11.8	13.8	16.8	18.9	33.7	26.3	29.0	44.6
Field Parameters																								
pH	S.U.	6.5-8.5 (S)	--	7.34	7.02	6.99	7.51	7.23	7.23	7.35	7.70	7.29	6.92	7.45	7.10	7.24	6.75	7.07	7.36	7.29	7.13	7.18	6.97	6.71
Specific Conductance	umhos/cm	--	690	964	1,141	553	880	660	471	729	413	732	619	618	827	922	1,199	964	794	720	664	584	724	155
Temperature	°C	--	15.2	12.9	11.9	10.8	12.1	9.9	13.1	11.1	12.4	10.8	13.3	11.3	13.7	5.4	10.7	9.5	13.7	11.3	12.0	10.3	13.3	10.2
Turbidity	NTU	5 (AL)	--	13	21	29	22.9	17.4	37.0	25	51	30	56	67	118	116	58	133	157	47	81	39	51	27

All other VOCs have been historically below laboratory detection lim
[1] = U.S. EPA Maximum Contaminant Level
(HHA) = U.S. EPA Lifetime Human Health Advisory
(S) = Secondary U.S. EPA MCL
(AL) = U.S. EPA Action Level
Duplicate samples collected at GM-4.
-- = Not Applicable
* = MEK contaminated deionized water.

Table 1 (continued)
Wayne Reclamation and Recycling Facility
City of Columbia City
Groundwater Monitoring Program

Parameter	Units	MCL[1]	Field Blank																															
			Jun-95	Jan-96	Jun-96	Jan-97	Jun-97	Dec-97	Jun-98	Jan-99	Jun-99	Dec-99	Jun-00	Dec-00	Jun-01	Oct-01	Apr-02	Oct-02	Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Oct-05	Apr-06	Oct-06	Apr-07	Oct-07	Apr-08	Oct-08	Apr-09	Oct-09	Apr-10
Inorganics																																		
Ammonia	mg/l	30 (HHA)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	0.22	<0.010	<0.010	0.54	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.0500	<0.0500	0.0910	<0.05	<0.05	0.235	0.0580
Chloride	mg/l	250 (S)	<1.0	<1.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	<1.0	19	<1.0	<1.0	<1.0	1	<1	1	2	<1.0	<1.0	<1	<1	<1	<5	<5	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chemical Oxygen Demand (COD)	mg/l	--	<20	<20	<20	<20	<20	<20	115	33	<15	<15	4	<1.0	<1.0	3	<5	<5	<5	<5	7	39	<5	<5	<10	<10	<50.0	<10.0	<10.0	<50.0	<50.0	<50.0	<10.0
Sodium	mg/l	--	<0.50	<0.50	<0.50	<0.50	14	<0.50	76	<0.20	<0.20	94.2	<0.10	0.28	0.33	0.20	0.403	0.18	0.442	0.10	<0.10	<0.10	<0.10	0.11	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00
Volatile Organic Compounds																																		
2-Butanone (Methyl ethyl ketone)	ug/l	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2	<10	<12.5	<12.5	612 *	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5
1,1-Dichloroethane	ug/l	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	ug/l	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,2-Dichloroethene	ug/l	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<1.0	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	ug/l	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	ug/l	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	ug/l	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	ug/l	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichloroethene	ug/l	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	1	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Vinyl Chloride	ug/l	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Field Parameters																																		
pH	S.U.	6.5-8.5 (S)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific Conductance	umhos/cm	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Temperature	°C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Turbidity	NTU	5 (AL)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

All other VOCs have been historically below laboratory detection lim
[1] = U.S. EPA Maximum Contaminant Level
(HHA) = U.S. EPA Lifetime Human Health Advisory
(S) = Secondary U.S. EPA MCL
(AL) = U.S. EPA Action Level
Duplicate samples collected at GM-4.
-- = Not Applicable
* = MEK contaminated deionized water.

Table 1 (continued)
Wayne Reclamation and Recycling Facility
City of Columbia City
Groundwater Monitoring Program

Parameter	Units	MCL[1]	Trip Blank																															
			Jun-95	Jan-96	Jun-96	Jan-97	Jun-97	Dec-97	Jun-98	Jan-99	Jun-99	Dec-99	Jun-00	Dec-00	Jun-01	Oct-01	Apr-02	Oct-02	Apr-03	Oct-03	Apr-04	Oct-04	Apr-05	Oct-05	Apr-06	Oct-06	Apr-07	Oct-07	Apr-08	Oct-08	Apr-09	Oct-09	Apr-10
Inorganics																																		
Ammonia	mg/l	30 (HHA)	<0.030	<0.030	<0.030	<0.030	--	--	<0.010	<0.010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	mg/l	250 (S)	<1.0	<1.0	<1.0	<1.0	--	--	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chemical Oxygen Demand (COD)	mg/l	--	<20	<20	<20	<20	--	--	<5	<5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	mg/l	--	<0.50	<0.50	<0.50	<0.50	--	--	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds																																		
2-Butanone (Methyl ethyl ketone)	ug/l	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2	<10	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5
1,1-Dichloroethane	ug/l	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	ug/l	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,2-Dichloroethene	ug/l	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<1.0	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	ug/l	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	ug/l	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	ug/l	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	ug/l	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichloroethene	ug/l	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Vinyl Chloride	ug/l	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<1.0	<5	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<2	<1	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Field Parameters																																		
pH	S.U.	6.5-8.5 (S)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Specific Conductance	umhos/cm	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Temperature	°C	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Turbidity	NTU	5 (AL)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

All other VOCs have been historically below laboratory detection lim
[1] = U.S. EPA Maximum Contaminant Level
(HHA) = U.S. EPA Lifetime Human Health Advisory
(S) = Secondary U.S. EPA MCL
(AL) = U.S. EPA Action Level
Duplicate samples collected at GM-4.
-- = Not Applicable
* = MEK contaminated deionized water.

Table 2
City of Columbia City, Indiana
Wayne Reclamation & recycling Facility
Groundwater Elevations & Well Data

Well No.	TOC Elevation (feet amsl)	Depth to Water (feet BTOC)																					
		12/13/99	6/29/00	12/5/00	6/4/01	10/25/01	4/22/02	10/15/02	4/18/03	10/17/03	4/23/04	10/22/04	4/15/05	10/14/05	4/25/06	10/13/06	4/12/07	10/12/07	4/18/08	10/17/08	4/23/09	10/22/09	4/27/10
GM-1	841.03	31.26	30.19	31.61	30.31	29.54	29.24	31.64	31.51	30.22	30.68	31.07	29.84	31.70	31.04	30.66	29.03	31.20	28.01	31.29	27.63	30.62	29.64
GM-2	833.24	23.65	22.08	23.60	22.18	21.45	21.12	23.75	23.32	22.20	22.69	23.21	21.67	24.05	23.08	22.76	21.05	23.23	19.77	23.43	19.42	22.84	21.70
GM-3	822.86	11.74	10.69	12.45	11.73	8.46	10.51	12.40	12.08	11.16	11.95	12.37	11.79	12.97	12.42	11.67	10.28	12.61	10.21	12.72	9.41	12.44	9.77
GM-4	827.37	16.54	15.33	17.18	16.39	13.51	15.17	17.21	16.79	15.78	16.59	17.14	16.56	17.99	17.30	16.32	15.16	17.48	14.76	17.63	13.97	17.24	14.69
MW-4S	842.94	--	--	33.43	32.03	31.52	30.92	33.55	33.17	32.02	32.42	32.90	31.48	33.76	32.80	32.49	30.89	32.95	29.51	33.21	29.27	32.56	31.52

Well No.	TOC Elevation (feet amsl)	Groundwater Elevation (feet amsl)																					
		12/13/99	6/29/00	12/5/00	6/4/01	10/25/01	4/22/02	10/15/02	4/18/03	10/17/03	4/23/04	10/22/04	4/15/05	10/14/05	4/25/06	10/13/06	4/12/07	10/12/07	4/18/08	10/17/08	4/23/09	10/22/09	4/27/10
GM-1	841.03	809.77	810.84	809.42	810.72	811.49	811.79	809.39	809.52	810.81	810.35	809.96	811.19	809.33	809.99	810.37	812.00	809.83	813.02	809.74	813.40	810.41	811.39
GM-2	833.24	809.59	811.16	809.64	811.06	811.79	812.12	809.49	809.92	811.04	810.55	810.03	811.57	809.19	810.16	810.48	812.19	810.01	813.47	809.81	813.82	810.40	811.54
GM-3	822.86	811.12	812.17	810.41	811.13	814.40	812.35	810.46	810.78	811.70	810.91	810.49	811.07	809.89	810.44	811.19	812.58	810.25	812.65	810.14	813.45	810.42	813.09
GM-4	827.37	810.83	812.04	810.19	810.98	813.86	812.20	810.16	810.58	811.59	810.78	810.23	810.81	809.38	810.07	811.05	812.21	809.89	812.61	809.74	813.40	810.13	812.68
MW-4S	842.94	--	--	809.51	810.91	811.42	812.02	809.39	809.77	810.92	810.52	810.04	811.46	809.18	810.14	810.45	812.05	809.99	813.43	809.73	813.67	810.38	811.42

Well No.	TOC Elevation (feet amsl)	Well Stick-Up (feet)																					
		12/13/1999	6/29/2000	12/5/2000	6/4/2001	10/25/2001	4/22/2002	10/15/2002	4/18/2003	10/17/2003	4/23/2004	10/22/2004	4/15/2005	10/14/2005	4/25/2006	10/13/2006	4/12/07	10/12/07	4/18/08	10/17/08	4/23/09	10/22/09	4/27/10
GM-1	841.03	2.1	--	1.9	1.9	2.1	1.8	2.1	1.8	1.8	1.8	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0
GM-2	833.24	2.5	--	2.2	2.2	2.5	2.2	2.5	2.2	2.2	2.2	2.4	2.5	2.5	2.4	2.5	2.4	2.5	2.4	2.4	2.5	2.4	2.4
GM-3	822.86	2.2	--	2.0	2.0	2.3	1.9	2.3	1.9	2.0	2.0	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
GM-4	827.37	3.3	--	2.6	2.6	3.0	2.5	3.0	2.6	2.7	2.6	2.9	2.9	2.9	2.9	3.4	3.0	2.9	2.9	2.9	2.9	3.0	2.9
MW-4S	842.94	--	--	--	--	3.0	2.6	--	--	--	1.5	2.8	2.7	2.8	2.7	2.7	2.7	2.6	2.8	2.8	3.0	2.8	2.8

Well No.	TOC Elevation (feet amsl)	Depth-to-Bottom (feet BTOC)																					
		12/13/1999	6/29/2000	12/5/2000	6/4/2001	10/25/2001	4/22/2002	10/15/2002	4/18/2003	10/17/2003	4/23/2004	10/22/2004	4/15/2005	10/14/2005	4/25/2006	10/13/2006	4/12/07	10/12/07	4/18/08	10/17/08	4/23/09	10/22/09	4/27/10
GM-1	841.03	35.10	34.84	34.84	34.84	34.86	34.81	34.81	34.91	35.05	34.96	34.97	34.97	35.00	35.02	35.01	34.99	34.98	35.00	35.00	35.03	35.06	35.05
GM-2	833.24	39.08	38.87	38.86	38.86	38.88	38.83	38.83	38.80	38.85	38.82	38.82	38.82	38.85	38.81	38.82	38.81	38.83	38.83	38.84	38.83	38.90	38.89
GM-3	822.86	27.95	27.72	27.75	27.75	27.74	27.71	27.71	27.68	27.72	27.68	27.68	27.68	27.68	27.65	27.66	27.65	27.67	27.67	27.61	27.65	27.65	27.63
GM-4	827.37	28.17	27.93	27.95	27.95	27.95	27.91	27.91	27.89	27.92	27.90	27.90	27.90	27.90	27.88	27.90	27.88	27.90	27.90	27.90	27.89	27.93	27.93
MW-4S	842.94	--	--	39.74	39.74	40.93	40.88	--	--	--	40.85	40.85	40.85	40.88	40.84	40.85	40.83	40.86	40.85	40.86	40.85	40.90	40.90

Data prior to 12/99 unavailable.
TOC = Top of casing elevation reported by Geraghty & Miller SAP.
amsl = above mean sea level.
BTOC = below top of casing

ATTACHMENT 1

FIELD-SAMPLING SHEETS
AND
CHAIN-OF-CUSTODY FORM

GROUNDWATER MONITORING WELL RECORD FORM
SITE LOCATION: WAYNE RECLAMATION & RECYCLING FACILITY - CITY OF COLUMBIA CITY, IN

WELL NO.: GM-1 DATE: 4-27-10 PROJECT NO.: 48755

FIELD BOOK NO.: N/A WEATHER: Sunny to Partly Cloudy cool 50°

SAMPLING CREW: Bailey

WELLHEAD INSPECTION:

Evidence of Activities at Well: No ✓ Yes ____ Comment: ____

Well Protector Condition: Good ✓ Poor ____ Comment: ____

Insect/Rodent Intrusion: No ____ Yes ✓ Comment: Canadian Geese nest directly next to well casing

Other: NONE

FIELD EQUIPMENT USED: Date Calibrated:

Water Level Indicator: Solinst ✓ Soiltest ____ Plopper ____

pH Meter: Hanna ____ Orion ____ Oakton ✓ — 4-27-10

Conductivity Meter: YSI ____ Oakton ✓ Myron L ____

Thermometer: YSI ____ Hanna ____ Oakton ✓

Turbidity: Hach ✓ HF Scientific ____

Dissolved Oxygen: Corning No. 1 ____ Corning No. 2 ____

Other: NONE

STATIC WATER LEVEL:

Reference Point (RP) Elevation: Top Casing ✓ Top Protector ____ Well Stick-up ____

Measured Level:	1st	2nd	3rd	Average
Time/Depth:	1041AM/ 29.64	1041AM/ 29.64	1041AM/ 29.64	29.64

Well Bottom: Measured Distance from RP: 35.05 1WV= .88 5WV= 4.41

PURGING:

Purging Device: Dedicated Pump ____ Dedicated Pump ____ Disposable Bailer ✓

Grundfos Pump ____ Bladder Pump ____ Other ____

Time Elapsed During Purging (mins.): 12 Total Gallons Removed During Purging: 5.0+ Gallons

MEASUREMENTS	TIME (IN MINUTES)							
	1050AM	1053AM	1055AM	1058AM	1100AM	1102AM		
Amount of Water Removed (mls.)	1	1.0	2.0	3.0	4.0	5.0		
pH (S.U.)	6.96	6.78	6.69	6.65	6.63	6.64		
Conductivity (umhos/cm)	517	414	374	348	334	331		
Temperature (°C)	11.3	11.1	11.1	11.2	11.3	11.3		
Turbidity (NTU)	233	187	190	226	221	207		
TDS (ppm)	–	–	–	–	–	–		
Dissolved Oxygen (mg/l)	–	–	–	–	–	–		

SAMPLING:

Sampling Device: Dedicated Pump ____ Dedicated Pump ____ Disposable Bailer ✓

Grundfos Pump ____ Bladder Pump ____ Other 1115AM

Time Sampling Began: 1105AM Time Completed: ____

Characteristics of Water: Odor NONE Color Orangish/Brown

Turbidity Slightly Silty Other NONE

QA/QC Sample Collected: Duplicate ____ Replicate ____ Matrix Spike/Matrix Spike Duplicate ____ None ✓

REMARKS:

GROUNDWATER MONITORING WELL RECORD FORM
SITE LOCATION: WAYNE RECLAMATION & RECYCLING FACILITY - CITY OF COLUMBIA CITY, IN

WELL NO.: GM-2 DATE: 4-27-10 PROJECT NO.: 48755

FIELD BOOK NO.: N/A WEATHER: Sunny to Partly Cloudy Cool 50°

SAMPLING CREW: Botley

WELLHEAD INSPECTION:

Evidence of Activities at Well: No ✓ Yes ____ Comment: ____

Well Protector Condition: Good ✓ Poor ____ Comment: ____

Insect/Rodent Intrusion: No ✓ Yes ____ Comment: ____

Other: NONE

FIELD EQUIPMENT USED: Date Calibrated:

Water Level Indicator: Solinst ✓ Soiltest ____ Plopper ____

pH Meter: Hanna ____ Orion ____ Oakton ✓ — 4-27-10

Conductivity Meter: YSI ____ Oakton ✓ Myron L ____

Thermometer: YSI ____ Hanna ____ Oakton ✓

Turbidity: Hach ✓ HF Scientific ____

Dissolved Oxygen: Corning No. 1 ____ Corning No. 2 ____

Other: NONE

STATIC WATER LEVEL:

Reference Point (RP) Elevation: Top Casing ✓ Top Protector ____ Well Stick-up ____

Measured Level:	1st	2nd	3rd	Average
Time/Depth:	1127AM/ 21.70	1127AM/ 21.70	1127AM/ 21.70	21.70

Well Bottom: Measured Distance from RP: 38.89 LWV: 2.80 SWV: 14.01

PURGING:

Purging Device: Dedicated Pump ____ Dedicated Pump ____ Disposable Bailer ✓
Grundfos Pump ____ Bladder Pump ____ Other ____

Time Elapsed During Purging (mins.): 22 Total Gallons Removed During Purging: 14.0 + Gallons

MEASUREMENTS	TIME (IN MINUTES)							
	1135 AM	1139 AM	1142AM	1145AM	1148AM	1151 AM	1154AM	1157AM
Amount of Water Removed (mls.)	1	2.0	4.0	6.0	8.0	10.0	12.0	14.0
pH (S.U.)	6.83	6.62	6.59	6.60	6.61	6.62	6.61	6.61
Conductivity (umhos/cm)	303	174	174	171	171	170	168	167
Temperature (°C)	9.7	10.7	10.8	11.0	11.0	11.0	11.0	11.0
Turbidity (NTU)	179	230	112	34	22	13	10	9
TDS (ppm)	-	-	-	-	-	-	-	-
Dissolved Oxygen (mg/l)	-	-	-	-	-	-	-	-

SAMPLING:

Sampling Device: Dedicated Pump ____ Dedicated Pump ____ Disposable Bailer ✓
Grundfos Pump ____ Bladder Pump ____ Other ____

Time Sampling Began: 1200PM Time Completed: 1210PM

Characteristics of Water: Odor NONE Color Clear
Turbidity Clear Other NONE

QA/QC Sample Collected: Duplicate ____ Replicate ____ Matrix Spike/Matrix Spike Duplicate ____ None ✓

REMARKS:

* Initially silty orange first 2± Gallons then cleared during purging.

GROUNDWATER MONITORING WELL RECORD FORM
SITE LOCATION: WAYNE RECLAMATION & RECYCLING FACILITY - CITY OF COLUMBIA CITY, IN

WELL NO.: GM-3 DATE: 4-27-10 PROJECT NO.: 48755

FIELD BOOK NO.: N/A WEATHER: Sunny to Partly Cloudy Windy cool 50-55°

SAMPLING CREW: Botley

WELLHEAD INSPECTION:

Evidence of Activities at Well: No ✓ Yes ____ Comment: ____

Well Protector Condition: Good ✓ Poor ____ Comment: ____

Insect/Rodent Intrusion: No ✓ Yes ____ Comment: ____

Other: NONE

FIELD EQUIPMENT USED: Date Calibrated:

Water Level Indicator: Solinst ✓ Soiltest ____ Plopper ____

pH Meter: Hanna ____ Orion ____ Oakton ✓ 4-27-10

Conductivity Meter: YSI ____ Oakton ✓ Myron L ____

Thermometer: YSI ____ Hanna ____ Oakton ✓

Turbidity: Hach ✓ HF Scientific ____

Dissolved Oxygen: Corning No. 1 ____ Corning No. 2 ____

Other: NONE

STATIC WATER LEVEL:

Reference Point (RP) Elevation: Top Casing ✓ Top Protector ____ Well Stick-up ____

Measured Level:	1st	2nd	3rd	Average
Time/Depth:	115PM / 9.77	115PM / 9.77	115PM / 9.77	9.77

Well Bottom: Measured Distance from RP: 27.63 IWV: 2.91 SWV: 14.56

PURGING:

Purging Device: Dedicated Pump ____ Dedicated Pump ____ Disposable Bailer ✓
Grundfos Pump ____ Bladder Pump ____ Other ____

Time Elapsed During Purging (mins.): 20 Total Gallons Removed During Purging: 15.0 Gallons

MEASUREMENTS	TIME (IN MINUTES)							
	120 PM	123 PM	126 PM	128 PM	132 PM	134 PM	136 PM	140 PM
Amount of Water Removed (mls.)	I	2.0	4.0	6.0	8.0	10.0	12.0	14.5
pH (S.U.)	7.46	7.27	7.22	7.22	7.23	7.20	7.19	7.20
Conductivity (umhos/cm)	151	142	134	132	133	132	133	132
Temperature (°C)	11.1	8.4	8.3	8.2	8.3	8.1	8.2	8.1
Turbidity (NTU)	49	270	236	425	612	782	808	901
TDS (ppm)	-	-	-	-	-	-	-	-
Dissolved Oxygen (mg/l)	-	-	-	-	-	-	-	-

SAMPLING:

Sampling Device: Dedicated Pump ____ Dedicated Pump ____ Disposable Bailer ✓
Grundfos Pump ____ Bladder Pump ____ Other ____

Time Sampling Began: 145PM Time Completed: 155PM

Characteristics of Water: Odor NONE Color Gray
Turbidity very silty Other NONE

QA/QC Sample Collected: Duplicate ____ Replicate ____ Matrix Spike/Matrix Spike Duplicate ____ None ✓

REMARKS:

* Equipment Blank taken at 105PM before purging at Sampling at this Well.

* Duplicate taken at this well.

GROUNDWATER MONITORING WELL RECORD FORM
SITE LOCATION: WAYNE RECLAMATION & RECYCLING FACILITY - CITY OF COLUMBIA CITY, IN

WELL NO.: GM-4 DATE: 4-27-10 PROJECT NO.: 48755

FIELD BOOK NO.: N/A WEATHER: Sunny to Partly Cloudy Cool 50-55°

SAMPLING CREW: Botley

WELLHEAD INSPECTION:

Evidence of Activities at Well: No ✓ Yes ____ Comment: ____

Well Protector Condition: Good ✓ Poor ____ Comment: ____

Insect/Rodent Intrusion: No ✓ Yes ____ Comment: ____

Other: NONE

FIELD EQUIPMENT USED: Date Calibrated:

Water Level Indicator: Solinst ✓ Soiltest ____ Plopper ____

pH Meter: Hanna ____ Orion ____ Oakton ✓ 4-27-10

Conductivity Meter: YSI ____ Oakton ✓ Myron L ____

Thermometer: YSI ____ Hanna ____ Oakton ✓

Turbidity: Hach ✓ HF Scientific ____

Dissolved Oxygen: Corning No. 1 ____ Corning No. 2 ____

Other: NONE

STATIC WATER LEVEL:

Reference Point (RP) Elevation: Top Casing ✓ Top Protector ____ Well Stick-up ____

Measured Level:	1st	2nd	3rd	Average
Time/Depth:	1212PM / 14.69	1212PM / 14.69	1212PM / 14.69	14.69

Well Bottom: Measured Distance from RP: 27.93 WCV: 2.16 SWV: 10.79

PURGING:

Purging Device: Dedicated Pump ____ Dedicated Pump ____ Disposable Bailer ✓
Grundfos Pump ____ Bladder Pump ____ Other ____

Time Elapsed During Purging (mins.): 18 Total Gallons Removed During Purging: 11.0 + Gallons

MEASUREMENTS	TIME (IN MINUTES)							
	1219PM	1222PM	1225PM	1228PM	1231PM	1233PM	1235PM	1237PM
Amount of Water Removed (mls.)	1	2.0	4.0	6.0	8.0	9.0	10.0	11.0
pH (S.U.)	6.91	6.76	6.74	6.72	6.72	6.70	6.70	6.71
Conductivity (umhos/cm)	159	158	157	157	158	157	157	155
Temperature (°C)	9.6	10.1	10.4	10.4	10.4	10.3	10.3	10.2
Turbidity (NTU)	131	295	109	50	37	30	28	27
TDS (ppm)	-	-	-	-	-	-	-	-
Dissolved Oxygen (mg/l)	-	-	-	-	-	-	-	-

SAMPLING:

Sampling Device: Dedicated Pump ____ Dedicated Pump ____ Disposable Bailer ✓
Grundfos Pump ____ Bladder Pump ____ Other ____

Time Sampling Began: 1240PM Time Completed: 1250PM

Characteristics of Water: Odor NONE Color Clear
Turbidity Clear Other NONE

QA/QC Sample Collected: Duplicate ✓ Replicate ____ Matrix Spike/Matrix Spike Duplicate ____ None ____

REMARKS:

* Initially first 2± Gallons silty orange then cleared during purging.

DTD 1220

TestAmerica INCORPORATED

Dayton Division
3601 South Dixie Drive
Dayton Ohio 45439

Phone: 937-294-6856
Toll Free: 800-572-9839
Fax: 937-294-7816

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?

State in which sampling occurred: Indiana Landfill

Compliance Monitoring? Yes No

Enforcement Action? Yes No

Client Name: Burgess & Niple, Inc.

Address: 5085 Reed Road

City/State/Zip: Columbus, Ohio, 43220

Project Manager: Michael Akins

Telephone Number: 614-459-2050 Fax No.: 614-451-1385

Sampler Name: (Print) Craig Botley

Sampler Signature: Stephen C. Botley Jr.

Report To: Michael Akins

Invoice To: Michael Akins

QUOTE NO:

Client Email: makins@burnip.com

Project No & ID: Wayne RRF - Columbia City, Indiana 48755

Sample ID	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: HNO_3	HCl - 40 ml Vial	NaOH	H_2SO_4	H_2SO_4	None	Other	Matrix: SOIL	WATER	VOCs 8260B	COD	Sodium	Chloride	Ammonia	RUSH TAT (Pre-Schedule)	RUSH Due Date	Standard 7-10 Business Days	Email Results	Standard Level 2 QC	Electronic Deliverables	Temp	pH	Cond.	Turb.
GM-1	4/27/10	1105AM	6	x			1	3		1		1			x	x	x	x	x	x			x	x	x	x	11.3	6.64	331	207
GM-2		1200PM	6	x			1	3		1		1			x	x	x	x	x	x							11.0	6.61	167	9
GM-3		1245PM	6	x			1	3		1		1			x	x	x	x	x	x							8.1	7.20	132	901
GM-4		1240PM	6	x			1	3		1		1			x	x	x	x	x	x							10.2	6.71	155	27
GM-Duplicate		–	6	x			1	3		1		1			x	x	x	x	x	x										
Equipment Blank		105PM	6	x			1	3		1		1			x	x	x	x	x	x										
Trip Blank	4/27/10	–	2	x				2							x	x														

Special Instructions:

Laboratory Comments:

Temperature Upon Receipt:

VOCs Free of Headspace? Y N NA

Sample Containers Intact? Y N

SR 4/29/10

Relinquished by:	Date	Time	Received by:	Date	Time
Stephen C. Botley Jr	4-28-10	3:00pm			
Relinquished by:	Date	Time	Received by TestAmerica:	Date	Time
				4/28/10	1830

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Cooler/Sample Receipt

☐ MSDS or Known Hazard Information Supplied by Client
☐ Bottle stickers applied ☐ ELEMENT comment entered ☐ MSDS/COC scanned/emailed to EH&S
☑ Discrepancies Client ID Burgoss
☐ Short Hold Work Order # DTA1220
☐ Rush ☐24hr ☐2day ☐3day ☐5day ☐other
Receipt evaluation performed by - Initials: SD Date: 4/28/10 Time: 1850

Method of Shipment:
☐ Walk-In Client
☑ TestAmerica Field/Courier
☐ Other Client/3rd Party Courier
☐ Fed Ex Tracking #
☐ UPS Tracking #
☐ DHL Tracking #
☐ Other

Are there any soil samples from areas requiring USDA quarantine? *(AL, AR, AZ, CA, FL, GA, HI, ID, LA MS, NC, NM, NY, OK, SC, TN, TX, VA, Puerto Rico, Virgin Islands, any other Non-Domestic area)*
☑ No ☐ Yes (If Yes, *Project Manager must be notified*).

Shipping Container Type:
☑ Cooler
☐ Box
☐ None
☐ Other

Packing Materials:
☑ Plastic Bags
☑ Bubble Wrap
☐ Foam
☐ Paper
☐ Packing Peanuts
☐ Vermiculite
☐ None
☐ Other

Custody Seals Intact:
☑ Yes
☐ No
☐ N/A (not used or required)

Cooling Materials:
☑ Ice *(solid)*
☐ Ice *(Melted)*
☐ Blue Ice
☐ Dry Ice
☐ None
☐ Other

Receipt Temperatures **Check if Additional Sheets Required** ☐

Thermometer ID	Observed (°C)	Corrected (°C)	Acceptable*	Direct from Field	Cooler ID	Note Affected Samples if temperature not acceptable
IR Pistol	5.4	4.4	☑Yes ☐No	☐Yes ☑No		
			☐Yes ☐No	☐Yes ☐No		
			☐Yes ☐No	☐Yes ☐No		

* Samples out of temperature, but received directly from the field with signs that the cooling process had started are considered acceptable.

Receipt Questions**	Y	N	n/a	"No" answers require additional comment
COC present & TA receipt signature, date, & time properly documented?	✓			
Containers & labels in good condition? *(unbroken, not leaking, appropriately filled, labels legible & attached)*	✓			
Appropriate containers used & adequate volume provided?	✓			
Correct preservation on the COC?	✓			
Number of sample containers match COC?	✓			
Samples received within hold time?	✓			
Samples submitted for GRO and Volatiles analyses (8260, 624, 524) received without headspace?	✓			
Was a Trip Blank received with VOA samples?	✓			
Were the samples free of any questionable physical conformities? For example, field duplicates or multiple bottles of the same sample do not significantly vary in appearance (color, proportion of solids, etc.)	✓			
Were the COC, bottle labels, and all other items free of all other discrepancies or issues that would need to be addressed with the Project Manager and/or Client?	SD 4/28/10	✓		Lids for bottles on sample GM-3 were marked as GM-4. bottles GM-3

** May not be applicable if samples are not for compliance testing

Client Contact Record
Contact via: ☐ Phone ☐ Email ☐ Other **Person Contacted:** **Date/Time:**
☐ Discrepancy allowance agreement is on record in the client project file.
Discussion/Resolution:

Any additional documentation and clarification from client must be noted in the narrative and/or scanned into the COC directory.

SD 4/29/10
Reviewed by PM Signature Date

WI No. DT-SCA-WI-001.8
effective 04/12/10

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ADDITIONAL Cooler/Sample Receipt

☐ MSDS or Known Hazard Information Supplied by Client
☐ Bottle stickers applied ☐ ELEMENT comment entered ☐ MSDS scanned w/COC
☐ Discrepancies Client ID Burgess
☐ Short Hold Work Order # DTD 1220
☐ Rush ☐24hr ☐2day ☐3day ☐5day ☐other
Receipt evaluation performed by - Initials: BJO Date: 4/28/10 Time: 8:30

Method of Shipment:
☐ Walk-In Client
☒ TestAmerica Field/Courier
☐ Other Client/3rd Party Courier
☐ Fed Ex Tracking #
☐ UPS Tracking #
☐ DHL Tracking #
☐ Other

Shipping Container Type:
☒ Cooler
☐ Box
☐ None
☐ Other

Packing Materials:
☒ Plastic Bags
☒ Bubble Wrap
☐ Foam
☐ Paper
☐ Packing Peanuts
☐ Vermiculite
☐ None
☐ Other

Custody Seals Intact
☒ Yes
☐ No
☐ N/A (not used or required)

Cooling Materials:
☒ Ice *(solid)*
☐ Ice *(Melted)*
☐ Blue Ice
☐ Dry Ice
☐ None
☐ Other

Are there any soil samples from areas requiring USDA quarantine? *(AL, AR, AZ, CA, FL, GA, HI, ID, LA MS, NC, NM, NY, OK, SC, TN, TX, VA, Puerto Rico, Virgin Islands, any other Non-Domestic area)*
☒ No ☐ Yes (If Yes, *Project Manager must be notified).*

Receipt Temperatures

Thermometer ID	Observed (°C)	Corrected (°C)	Acceptable*	Direct from Field	Cooler ID	Note Affected Samples if temperature not acceptable
MPAK	0.9	1.2	☒Yes ☐No	☐Yes ☒No		
			☐Yes ☐No	☐Yes ☐No		

* Samples out of temperature, but received directly from the field with signs that the cooling process had started are considered acceptable.

Method of Shipment:
☐ Walk-In Client
☐ TestAmerica Field/Courier
☐ Other Client/3rd Party Courier
☐ Fed Ex Tracking #
☐ UPS Tracking #
☐ DHL Tracking #
☐ Other

Shipping Container Type:
☐ Cooler
☐ Box
☐ None
☐ Other

Packing Materials:
☐ Plastic Bags
☐ Bubble Wrap
☐ Foam
☐ Paper
☐ Packing Peanuts
☐ Vermiculite
☐ None
☐ Other

Custody Seals Intact
☐ Yes
☐ No
☐ N/A (not used or required)

Cooling Materials:
☐ Ice *(solid)*
☐ Ice *(Melted)*
☐ Blue Ice
☐ Dry Ice
☐ None
☐ Other

Are there any soil samples from areas requiring USDA quarantine? *(AL, AR, AZ, CA, FL, GA, HI, ID, LA MS, NC, NM, NY, OK, SC, TN, TX, VA, Puerto Rico, Virgin Islands, any other Non-Domestic area)*
☐ No ☐ Yes (If Yes, *Project Manager must be notified).*

Receipt Temperatures

Thermometer ID	Observed (°C)	Corrected (°C)	Acceptable*	Direct from Field	Cooler ID	Note Affected Samples if temperature not acceptable
		4.2 10	☐Yes ☐No	☐Yes ☐No		
			☐Yes ☐No	☐Yes ☐No		

* Samples out of temperature, but received directly from the field with signs that the cooling process had started are considered acceptable.

Method of Shipment:
☐ Walk-In Client
☐ TestAmerica Field/Courier
☐ Other Client/3rd Party Courier
☐ Fed Ex Tracking #
☐ UPS Tracking #
☐ DHL Tracking #
☐ Other

Shipping Container Type:
☐ Cooler
☐ Box
☐ None
☐ Other

Packing Materials:
☐ Plastic Bags
☐ Bubble Wrap
☐ Foam
☐ Paper
☐ Packing Peanuts
☐ Vermiculite
☐ None
☐ Other

Custody Seals Intact
☐ Yes
☐ No
☐ N/A (not used or required)

Cooling Materials:
☐ Ice *(solid)*
☐ Ice *(Melted)*
☐ Blue Ice
☐ Dry Ice
☐ None
☐ Other

Are there any soil samples from areas requiring USDA quarantine? *(AL, AR, AZ, CA, FL, GA, HI, ID, LA MS, NC, NM, NY, OK, SC, TN, TX, VA, Puerto Rico, Virgin Islands, any other Non-Domestic area)*
☐ No ☐ Yes (If Yes, *Project Manager must be notified).*

Receipt Temperatures

Thermometer ID	Observed (°C)	Corrected (°C)	Acceptable*	Direct from Field	Cooler ID	Note Affected Samples if temperature not acceptable
			☐Yes ☐No	☐Yes ☐No		
			☐Yes ☐No	☐Yes ☐No		

* Samples out of temperature, but received directly from the field with signs that the cooling process had started are considered acceptable.

Reviewed by PM Signature [signature] Date 4/29/10

WI No. DT-SCA-WI-001.8
effective 04/12/10

ATTACHMENT 2

LABORATORY REPORT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4738 Gateway Circle Dayton, OH 45440 (800) 572-9839
339 W. Walton Blvd Pontiac, MI 48340 (800) 526-4951

May 13, 2010

Client:

Burgess & Niple (Landfill)
5085 Reed Rd.
Columbus, OH 43220

Attn: Michael Akins

Work Order: DTD1220
Project Name: Wayne Reclamation & Recycling (Indiana)
Project Number: P20080417S28

Date Received: 04/28/10

Samples logged in at Dayton laboratory.

An executed copy of the Chain of Custody is also included as an addendum to this report.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at the number shown above.

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
GM-1	DTD1220-01	04/27/10 11:05
GM-2	DTD1220-02	04/27/10 12:00
GM-3	DTD1220-03	04/27/10 13:45
GM-4	DTD1220-04	04/27/10 12:40
GM-Duplicate	DTD1220-05	04/27/10
Equipment Blank	DTD1220-06	04/27/10 13:05
Trip Blank	DTD1220-07	04/27/10

Ohio Certification Number: 4074, 857

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

Report Approved By:

SAHoward

This report has been electronically signed.

TestAmerica Dayton
Shelly A. Howard
Dayton Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4738 Gateway Circle Dayton, OH 45440 (800) 572-9839
339 W. Walton Blvd Pontiac, MI 48340 (800) 526-4951

Burgess & Niple (Landfill)
5085 Reed Rd.
Columbus, OH 43220
Michael Akins

Work Order: DTD1220
Project: Wayne Reclamation & Recycling (Indiana)
Project Number: P20080417S28

Received: 04/28/10
Reported: 05/13/10 16:38

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Rpt Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DTD1220-01 (GM-1 - Water - NonPotable)					**Sampled: 04/27/10 11:05**			**Recvd: 04/28/10 18:30**	
Client Supplied Field Data									
pH	**6.64**		S.U.	0.10	1	04/29/10 11:36	PRB	10D1159	NA
Specific Conductance	**331**		umhos/cm	10	1	04/29/10 11:36	PRB	10D1159	NA
Temperature	**11.3**		°C	0.100	1	04/29/10 11:36	PRB	10D1159	NA
Turbidity - Client Supplied	**207**		NTU	NA	1	04/29/10 11:36	PRB	10D1159	NA
General Chemistry Parameters									
Chloride	**47.8**		mg/L	1.00	1	04/29/10 15:32	RLM	10D1197	SW 9056A
Ammonia, Undistilled as N	**0.662**		mg/L	0.0500	1	04/29/10 10:49	KKH	10D1174	EPA 350.1/SM18 4500 NH3 H
Chemical Oxygen Demand	**28.1**		mg/L	10.0	1	04/29/10 12:47	EEH	10D1110	Hach 8000
Total Metals									
Sodium	**21.2**		mg/L	1.00	1	04/29/10 21:17	MJW	10D1119	SW 6010B
Volatile Organic Compounds by GC/MS									
Acetone	<20.0		ug/L	20.0	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Acrylonitrile	<50.0		ug/L	50.0	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Benzene	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Bromochloromethane	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Bromodichloromethane (Dichlorobromomethane)	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Bromoform	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Bromomethane (Methyl bromide)	<5.00		ug/L	5.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
2-Butanone (MEK)	<12.5		ug/L	12.5	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Carbon tetrachloride	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Chloroethane	<5.00		ug/L	5.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Chloromethane (Methyl chloride)	<5.00		ug/L	5.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Dibromochloromethane (Chlorodibromomethane)	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
1,2-Dibromo-3-chloropropane	<5.00		ug/L	5.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
1,2-Dibromoethane (EDB)	<5.00		ug/L	5.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
trans-1,4-Dichloro-2-butene	<5.00		ug/L	5.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
1,1-Dichloroethene	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
cis-1,3-Dichloropropene	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
trans-1,3-Dichloropropene	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B

Burgess & Niple (Landfill)	Work Order:	DTD1220		Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)		Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28			
Michael Akins					

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Rpt Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DTD1220-01 (GM-1 - Water - NonPotable) - cont.					**Sampled: 04/27/10 11:05**		**Recvd: 04/28/10 18:30**		
Volatile Organic Compounds by GC/MS - cont.									
Ethylbenzene	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
2-Hexanone	<10.0		ug/L	10.0	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Iodomethane	<5.00		ug/L	5.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Methylene chloride	<5.00		ug/L	5.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
4-Methyl-2-pentanone (MIBK)	<12.5		ug/L	12.5	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Styrene	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Toluene	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Trichlorofluoromethane	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
1,2,3-Trichloropropane	<5.00		ug/L	5.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Vinyl Acetate	<5.00		ug/L	5.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Xylenes, Total	<2.00		ug/L	2.00	1	05/06/10 04:52	jmt	10E0214	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*103 %*					05/06/10 04:52	jmt	10E0214	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*96 %*					05/06/10 04:52	jmt	10E0214	SW 8260B
Surr: Toluene-d8 (80-120%)	*98 %*					05/06/10 04:52	jmt	10E0214	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*100 %*					05/06/10 04:52	jmt	10E0214	SW 8260B

Burgess & Niple (Landfill)
5085 Reed Rd.
Columbus, OH 43220
Michael Akins

Work Order: DTD1220
Project: Wayne Reclamation & Recycling (Indiana)
Project Number: P20080417S28

Received: 04/28/10
Reported: 05/13/10 16:38

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Rpt Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DTD1220-02 (GM-2 - Water - NonPotable)					**Sampled: 04/27/10 12:00**			**Recvd: 04/28/10 18:30**	
Client Supplied Field Data									
pH	**6.61**		S.U.	0.10	1	04/29/10 11:36	PRB	10D1159	NA
Specific Conductance	**167**		umhos/cm	10	1	04/29/10 11:36	PRB	10D1159	NA
Temperature	**11.0**		°C	0.100	1	04/29/10 11:36	PRB	10D1159	NA
Turbidity - Client Supplied	**9.00**		NTU	NA	1	04/29/10 11:36	PRB	10D1159	NA
General Chemistry Parameters									
Chloride	**8.27**		mg/L	1.00	1	04/29/10 15:49	RLM	10D1197	SW 9056A
Ammonia, Undistilled as N	**0.928**		mg/L	0.100	2	04/29/10 10:49	KKH	10D1174	EPA 350.1/SM18 4500 NH3 H
Chemical Oxygen Demand	<10.0		mg/L	10.0	1	04/29/10 12:47	EEH	10D1110	Hach 8000
Total Metals									
Sodium	**8.15**		mg/L	1.00	1	04/29/10 21:37	MJW	10D1119	SW 6010B
Volatile Organic Compounds by GC/MS									
Acetone	<20.0		ug/L	20.0	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Acrylonitrile	<50.0		ug/L	50.0	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Benzene	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Bromochloromethane	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Bromodichloromethane (Dichlorobromomethane)	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Bromoform	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Bromomethane (Methyl bromide)	<5.00		ug/L	5.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
2-Butanone (MEK)	<12.5		ug/L	12.5	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Carbon tetrachloride	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Chloroethane	<5.00		ug/L	5.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Chloromethane (Methyl chloride)	<5.00		ug/L	5.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Dibromochloromethane (Chlorodibromomethane)	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
1,2-Dibromo-3-chloropropane	<5.00		ug/L	5.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
1,2-Dibromoethane (EDB)	<5.00		ug/L	5.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
trans-1,4-Dichloro-2-butene	<5.00		ug/L	5.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
1,1-Dichloroethene	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
cis-1,3-Dichloropropene	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
trans-1,3-Dichloropropene	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B

Burgess & Niple (Landfill)	Work Order:	DTD1220		Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)		Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28			
Michael Akins					

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Rpt Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DTD1220-02 (GM-2 - Water - NonPotable) - cont.					**Sampled: 04/27/10 12:00**		**Recvd: 04/28/10 18:30**		
Volatile Organic Compounds by GC/MS - cont.									
Ethylbenzene	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
2-Hexanone	<10.0		ug/L	10.0	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Iodomethane	<5.00		ug/L	5.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Methylene chloride	<5.00		ug/L	5.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
4-Methyl-2-pentanone (MIBK)	<12.5		ug/L	12.5	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Styrene	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Toluene	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Trichlorofluoromethane	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
1,2,3-Trichloropropane	<5.00		ug/L	5.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Vinyl Acetate	<5.00		ug/L	5.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Xylenes, Total	<2.00		ug/L	2.00	1	05/06/10 05:21	jmt	10E0214	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*103 %*					05/06/10 05:21	jmt	10E0214	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*97 %*					05/06/10 05:21	jmt	10E0214	SW 8260B
Surr: Toluene-d8 (80-120%)	*98 %*					05/06/10 05:21	jmt	10E0214	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*100 %*					05/06/10 05:21	jmt	10E0214	SW 8260B

Burgess & Niple (Landfill)	Work Order:	DTD1220		Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)		Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28			
Michael Akins					

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Rpt Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DTD1220-03 (GM-3 - Water - NonPotable)					**Sampled: 04/27/10 13:45**			**Recvd: 04/28/10 18:30**	
Client Supplied Field Data									
pH	**7.20**		S.U.	0.10	1	04/29/10 11:36	PRB	10D1159	NA
Specific Conductance	**132**		umhos/cm	10	1	04/29/10 11:36	PRB	10D1159	NA
Temperature	**8.10**		°C	0.100	1	04/29/10 11:36	PRB	10D1159	NA
Turbidity - Client Supplied	**901**		NTU	NA	1	04/29/10 11:36	PRB	10D1159	NA
General Chemistry Parameters									
Chloride	**37.1**		mg/L	1.00	1	04/29/10 16:05	RLM	10D1197	SW 9056A
Ammonia, Undistilled as N	**0.341**		mg/L	0.0500	1	04/29/10 10:49	KKH	10D1174	EPA 350.1/SM18 4500 NH3 H
Chemical Oxygen Demand	**25.9**		mg/L	10.0	1	04/29/10 12:47	EEH	10D1110	Hach 8000
Total Metals									
Sodium	**17.5**		mg/L	1.00	1	04/29/10 21:43	MJW	10D1119	SW 6010B
Volatile Organic Compounds by GC/MS									
Acetone	<20.0		ug/L	20.0	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Acrylonitrile	<50.0		ug/L	50.0	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Benzene	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Bromochloromethane	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Bromodichloromethane (Dichlorobromomethane)	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Bromoform	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Bromomethane (Methyl bromide)	<5.00		ug/L	5.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
2-Butanone (MEK)	<12.5		ug/L	12.5	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Carbon tetrachloride	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Chloroethane	<5.00		ug/L	5.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Chloromethane (Methyl chloride)	<5.00		ug/L	5.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Dibromochloromethane (Chlorodibromomethane)	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
1,2-Dibromo-3-chloropropane	<5.00		ug/L	5.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
1,2-Dibromoethane (EDB)	<5.00		ug/L	5.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
trans-1,4-Dichloro-2-butene	<5.00		ug/L	5.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
cis-1,2-Dichloroethene	**10.8**		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
1,1-Dichloroethene	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
cis-1,3-Dichloropropene	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
trans-1,3-Dichloropropene	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B

Burgess & Niple (Landfill)	Work Order:	DTD1220		Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)		Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28			
Michael Akins					

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Rpt Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DTD1220-03 (GM-3 - Water - NonPotable) - cont.					**Sampled: 04/27/10 13:45**		**Recvd: 04/28/10 18:30**		
Volatile Organic Compounds by GC/MS - cont.									
Ethylbenzene	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
2-Hexanone	<10.0		ug/L	10.0	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Iodomethane	<5.00		ug/L	5.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Methylene chloride	<5.00		ug/L	5.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
4-Methyl-2-pentanone (MIBK)	<12.5		ug/L	12.5	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Styrene	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Toluene	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Trichlorofluoromethane	<1.00		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
1,2,3-Trichloropropane	<5.00		ug/L	5.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Vinyl Acetate	<5.00		ug/L	5.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Vinyl chloride	**8.53**		ug/L	1.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Xylenes, Total	<2.00		ug/L	2.00	1	05/06/10 05:50	jmt	10E0214	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*103 %*					05/06/10 05:50	jmt	10E0214	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*96 %*					05/06/10 05:50	jmt	10E0214	SW 8260B
Surr: Toluene-d8 (80-120%)	*98 %*					05/06/10 05:50	jmt	10E0214	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*100 %*					05/06/10 05:50	jmt	10E0214	SW 8260B

Burgess & Niple (Landfill)
5085 Reed Rd.
Columbus, OH 43220
Michael Akins

Work Order: DTD1220
Project: Wayne Reclamation & Recycling (Indiana)
Project Number: P20080417S28

Received: 04/28/10
Reported: 05/13/10 16:38

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Rpt Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DTD1220-04 (GM-4 - Water - NonPotable)					**Sampled: 04/27/10 12:40**			**Recvd: 04/28/10 18:30**	
Client Supplied Field Data									
pH	**6.71**		S.U.	0.10	1	04/29/10 11:36	PRB	10D1159	NA
Specific Conductance	**155**		umhos/cm	10	1	04/29/10 11:36	PRB	10D1159	NA
Temperature	**10.2**		°C	0.100	1	04/29/10 11:36	PRB	10D1159	NA
Turbidity - Client Supplied	**27.0**		NTU	NA	1	04/29/10 11:36	PRB	10D1159	NA
General Chemistry Parameters									
Chloride	**2.51**		mg/L	1.00	1	04/29/10 16:22	RLM	10D1197	SW 9056A
Ammonia, Undistilled as N	**0.261**		mg/L	0.0500	1	05/04/10 09:48	KKH	10E0069	EPA 350.1/SM18 4500 NH3 H
Chemical Oxygen Demand	<10.0		mg/L	10.0	1	04/29/10 12:47	EEH	10D1110	Hach 8000
Total Metals									
Sodium	**7.54**		mg/L	1.00	1	04/29/10 21:48	MJW	10D1119	SW 6010B
Volatile Organic Compounds by GC/MS									
Acetone	<20.0		ug/L	20.0	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Acrylonitrile	<50.0		ug/L	50.0	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Benzene	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Bromochloromethane	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Bromodichloromethane (Dichlorobromomethane)	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Bromoform	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Bromomethane (Methyl bromide)	<5.00		ug/L	5.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
2-Butanone (MEK)	<12.5		ug/L	12.5	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Carbon tetrachloride	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Chloroethane	<5.00		ug/L	5.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Chloromethane (Methyl chloride)	<5.00		ug/L	5.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Dibromochloromethane (Chlorodibromomethane)	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
1,2-Dibromo-3-chloropropane	<5.00		ug/L	5.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
1,2-Dibromoethane (EDB)	<5.00		ug/L	5.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
trans-1,4-Dichloro-2-butene	<5.00		ug/L	5.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
1,1-Dichloroethane	**17.9**		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
cis-1,2-Dichloroethene	**149**		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
trans-1,2-Dichloroethene	**10.3**		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
1,1-Dichloroethene	**3.59**		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
cis-1,3-Dichloropropene	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
trans-1,3-Dichloropropene	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B

Burgess & Niple (Landfill)	Work Order:	DTD1220		Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)		Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28			
Michael Akins					

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Rpt Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DTD1220-04 (GM-4 - Water - NonPotable) - cont.					**Sampled: 04/27/10 12:40**		**Recvd: 04/28/10 18:30**		
Volatile Organic Compounds by GC/MS - cont.									
Ethylbenzene	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
2-Hexanone	<10.0		ug/L	10.0	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Iodomethane	<5.00		ug/L	5.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Methylene chloride	<5.00		ug/L	5.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
4-Methyl-2-pentanone (MIBK)	<12.5		ug/L	12.5	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Styrene	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Toluene	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
1,1,1-Trichloroethane	**150**		ug/L	50.0	50	05/06/10 13:47	jmt	10E0226	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Trichloroethene	**952**		ug/L	50.0	50	05/06/10 13:47	jmt	10E0226	SW 8260B
Trichlorofluoromethane	<1.00		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
1,2,3-Trichloropropane	<5.00		ug/L	5.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Vinyl Acetate	<5.00		ug/L	5.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Vinyl chloride	**46.7**		ug/L	1.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Xylenes, Total	<2.00		ug/L	2.00	1	05/06/10 07:16	jmt	10E0214	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*104 %*					05/06/10 07:16	jmt	10E0214	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*102 %*					05/06/10 13:47	jmt	10E0226	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*103 %*					05/06/10 07:16	jmt	10E0214	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*97 %*					05/06/10 13:47	jmt	10E0226	SW 8260B
Surr: Toluene-d8 (80-120%)	*98 %*					05/06/10 07:16	jmt	10E0214	SW 8260B
Surr: Toluene-d8 (80-120%)	*98 %*					05/06/10 13:47	jmt	10E0226	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*100 %*					05/06/10 07:16	jmt	10E0214	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*98 %*					05/06/10 13:47	jmt	10E0226	SW 8260B

Burgess & Niple (Landfill)	Work Order:	DTD1220		Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)		Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28			
Michael Akins					

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Rpt Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DTD1220-05 (GM-Duplicate - Water - NonPotable)					**Sampled: 04/27/10**			**Recvd: 04/28/10 18:30**	
General Chemistry Parameters									
Chloride	**2.52**		mg/L	1.00	1	04/29/10 16:39	RLM	10D1197	SW 9056A
Ammonia, Undistilled as N	**0.305**		mg/L	0.0500	1	05/04/10 09:48	KKH	10E0069	EPA 350.1/SM18 4500 NH3 H
Chemical Oxygen Demand	<10.0		mg/L	10.0	1	04/29/10 12:47	EEH	10D1110	Hach 8000
Total Metals									
Sodium	**8.06**		mg/L	1.00	1	04/29/10 21:54	MJW	10D1119	SW 6010B
Volatile Organic Compounds by GC/MS									
Acetone	<20.0		ug/L	20.0	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Acrylonitrile	<50.0		ug/L	50.0	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Benzene	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Bromochloromethane	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Bromodichloromethane (Dichlorobromomethane)	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Bromoform	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Bromomethane (Methyl bromide)	<5.00		ug/L	5.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
2-Butanone (MEK)	<12.5		ug/L	12.5	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Carbon tetrachloride	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Chloroethane	<5.00		ug/L	5.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Chloromethane (Methyl chloride)	<5.00		ug/L	5.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Dibromochloromethane (Chlorodibromomethane)	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
1,2-Dibromo-3-chloropropane	<5.00		ug/L	5.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
1,2-Dibromoethane (EDB)	<5.00		ug/L	5.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
trans-1,4-Dichloro-2-butene	<5.00		ug/L	5.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
1,1-Dichloroethane	**17.1**		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
cis-1,2-Dichloroethene	**142**		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
trans-1,2-Dichloroethene	**9.81**		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
1,1-Dichloroethene	**3.32**		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
cis-1,3-Dichloropropene	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
trans-1,3-Dichloropropene	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
2-Hexanone	<10.0		ug/L	10.0	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Iodomethane	<5.00		ug/L	5.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Methylene chloride	<5.00		ug/L	5.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B

Burgess & Niple (Landfill)	Work Order:	DTD1220		Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)		Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28			
Michael Akins					

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Rpt Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DTD1220-05 (GM-Duplicate - Water - NonPotable) - cont.					**Sampled: 04/27/10**			**Recvd: 04/28/10 18:30**	
Volatile Organic Compounds by GC/MS - cont.									
4-Methyl-2-pentanone (MIBK)	<12.5		ug/L	12.5	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Styrene	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Toluene	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
1,1,1-Trichloroethane	**142**		ug/L	50.0	50	05/06/10 14:16	jmt	10E0226	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Trichloroethene	**890**		ug/L	50.0	50	05/06/10 14:16	jmt	10E0226	SW 8260B
Trichlorofluoromethane	<1.00		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
1,2,3-Trichloropropane	<5.00		ug/L	5.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Vinyl Acetate	<5.00		ug/L	5.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Vinyl chloride	**44.6**		ug/L	1.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Xylenes, Total	<2.00		ug/L	2.00	1	05/06/10 06:47	jmt	10E0214	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*103 %*					05/06/10 06:47	jmt	10E0214	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*101 %*					05/06/10 14:16	jmt	10E0226	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*102 %*					05/06/10 06:47	jmt	10E0214	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*96 %*					05/06/10 14:16	jmt	10E0226	SW 8260B
Surr: Toluene-d8 (80-120%)	*99 %*					05/06/10 06:47	jmt	10E0214	SW 8260B
Surr: Toluene-d8 (80-120%)	*98 %*					05/06/10 14:16	jmt	10E0226	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*100 %*					05/06/10 06:47	jmt	10E0214	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*99 %*					05/06/10 14:16	jmt	10E0226	SW 8260B

Burgess & Niple (Landfill)	Work Order:	DTD1220		Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)		Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28			
Michael Akins					

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Rpt Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DTD1220-06 (Equipment Blank - Water - NonPotable)					**Sampled: 04/27/10 13:05**		**Recvd: 04/28/10 18:30**		
General Chemistry Parameters									
Chloride	<1.00		mg/L	1.00	1	04/29/10 17:12	RLM	10D1197	SW 9056A
Ammonia, Undistilled as N	**0.0580**		mg/L	0.0500	1	05/04/10 09:48	KKH	10E0069	EPA 350.1/SM18 4500 NH3 H
Chemical Oxygen Demand	<10.0		mg/L	10.0	1	04/29/10 12:47	EEH	10D1110	Hach 8000
Total Metals									
Sodium	<1.00		mg/L	1.00	1	04/29/10 21:59	MJW	10D1119	SW 6010B
Volatile Organic Compounds by GC/MS									
Acetone	<20.0		ug/L	20.0	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Acrylonitrile	<50.0		ug/L	50.0	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Benzene	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Bromochloromethane	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Bromodichloromethane (Dichlorobromomethane)	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Bromoform	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Bromomethane (Methyl bromide)	<5.00		ug/L	5.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
2-Butanone (MEK)	<12.5		ug/L	12.5	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Carbon tetrachloride	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Chloroethane	<5.00		ug/L	5.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Chloromethane (Methyl chloride)	<5.00		ug/L	5.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Dibromochloromethane (Chlorodibromomethane)	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
1,2-Dibromo-3-chloropropane	<5.00		ug/L	5.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
1,2-Dibromoethane (EDB)	<5.00		ug/L	5.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
trans-1,4-Dichloro-2-butene	<5.00		ug/L	5.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
1,1-Dichloroethene	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
cis-1,3-Dichloropropene	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
trans-1,3-Dichloropropene	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
2-Hexanone	<10.0		ug/L	10.0	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Iodomethane	<5.00		ug/L	5.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Methylene chloride	<5.00		ug/L	5.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B

Burgess & Niple (Landfill)	Work Order:	DTD1220		Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)		Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28			
Michael Akins					

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Rpt Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DTD1220-06 (Equipment Blank - Water - NonPotable) - cont.					**Sampled: 04/27/10 13:05**			**Recvd: 04/28/10 18:30**	
Volatile Organic Compounds by GC/MS - cont.									
4-Methyl-2-pentanone (MIBK)	<12.5		ug/L	12.5	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Styrene	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Toluene	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Trichlorofluoromethane	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
1,2,3-Trichloropropane	<5.00		ug/L	5.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Vinyl Acetate	<5.00		ug/L	5.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Xylenes, Total	<2.00		ug/L	2.00	1	05/06/10 00:32	jmt	10E0214	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*102 %*					05/06/10 00:32	jmt	10E0214	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*96 %*					05/06/10 00:32	jmt	10E0214	SW 8260B
Surr: Toluene-d8 (80-120%)	*98 %*					05/06/10 00:32	jmt	10E0214	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*100 %*					05/06/10 00:32	jmt	10E0214	SW 8260B

Burgess & Niple (Landfill)	Work Order:	DTD1220		Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)		Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28			
Michael Akins					

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Rpt Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DTD1220-07 (Trip Blank - Water - NonPotable)					**Sampled: 04/27/10**			**Recvd: 04/28/10 18:30**	
Volatile Organic Compounds by GC/MS									
Acetone	<20.0		ug/L	20.0	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Acrylonitrile	<50.0		ug/L	50.0	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Benzene	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Bromochloromethane	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Bromodichloromethane (Dichlorobromomethane)	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Bromoform	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Bromomethane (Methyl bromide)	<5.00		ug/L	5.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
2-Butanone (MEK)	<12.5		ug/L	12.5	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Carbon tetrachloride	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Chloroethane	<5.00		ug/L	5.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Chloromethane (Methyl chloride)	<5.00		ug/L	5.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Dibromochloromethane (Chlorodibromomethane)	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
1,2-Dibromo-3-chloropropane	<5.00		ug/L	5.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
1,2-Dibromoethane (EDB)	<5.00		ug/L	5.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
trans-1,4-Dichloro-2-butene	<5.00		ug/L	5.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
1,1-Dichloroethene	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
cis-1,3-Dichloropropene	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
trans-1,3-Dichloropropene	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
2-Hexanone	<10.0		ug/L	10.0	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Iodomethane	<5.00		ug/L	5.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Methylene chloride	<5.00		ug/L	5.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
4-Methyl-2-pentanone (MIBK)	<12.5		ug/L	12.5	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Styrene	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Toluene	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B

Burgess & Niple (Landfill)	Work Order:	DTD1220		Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)		Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28			
Michael Akins					

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	Rpt Limit	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DTD1220-07 (Trip Blank - Water - NonPotable) - cont.					**Sampled: 04/27/10**			**Recvd: 04/28/10 18:30**	
Volatile Organic Compounds by GC/MS - cont.									
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Trichlorofluoromethane	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
1,2,3-Trichloropropane	<5.00		ug/L	5.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Vinyl Acetate	<5.00		ug/L	5.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Xylenes, Total	<2.00		ug/L	2.00	1	05/06/10 01:01	jmt	10E0214	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*103 %*					05/06/10 01:01	jmt	10E0214	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*96 %*					05/06/10 01:01	jmt	10E0214	SW 8260B
Surr: Toluene-d8 (80-120%)	*98 %*					05/06/10 01:01	jmt	10E0214	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*99 %*					05/06/10 01:01	jmt	10E0214	SW 8260B

Burgess & Niple (Landfill)	Work Order:	DTD1220		Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)		Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28			
Michael Akins					

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
General Chemistry Parameters														
Chemical Oxygen Demand	10D1110			mg/L	N/A	10.0	<10.0							
Ammonia, Undistilled as N	10D1174			mg/L	N/A	0.0500	<0.0500							
Chloride	10D1197			mg/L	N/A	1.00	<1.00							
Ammonia, Undistilled as N	10E0069			mg/L	N/A	0.0500	<0.0500							
Total Metals														
Sodium	10D1119			mg/L	N/A	1.00	<1.00							
Volatile Organic Compounds by GC/MS														
Acetone	10E0214			ug/L	N/A	20.0	<20.0							
Acrolein	10E0214			ug/L	N/A	50.0	<50.0							
Acrylonitrile	10E0214			ug/L	N/A	50.0	<50.0							
Allyl chloride	10E0214			ug/L	N/A	5.00	<5.00							
Benzene	10E0214			ug/L	N/A	1.00	<1.00							
Bromobenzene	10E0214			ug/L	N/A	1.00	<1.00							
Bromochloromethane	10E0214			ug/L	N/A	1.00	<1.00							
Bromodichloromethane (Dichlorobromomethane)	10E0214			ug/L	N/A	1.00	<1.00							
Bromoform	10E0214			ug/L	N/A	1.00	<1.00							
Bromomethane (Methyl bromide)	10E0214			ug/L	N/A	5.00	<5.00							
2-Butanone (MEK)	10E0214			ug/L	N/A	12.5	<12.5							
tert-Butylbenzene	10E0214			ug/L	N/A	1.00	<1.00							
sec-Butylbenzene	10E0214			ug/L	N/A	1.00	<1.00							
n-Butylbenzene	10E0214			ug/L	N/A	1.00	<1.00							
Carbon disulfide	10E0214			ug/L	N/A	1.00	<1.00							
Carbon tetrachloride	10E0214			ug/L	N/A	1.00	<1.00							
Chlorobenzene	10E0214			ug/L	N/A	1.00	<1.00							
Chloroethane	10E0214			ug/L	N/A	5.00	<5.00							
2-Chloroethylvinyl ether	10E0214			ug/L	N/A	5.00	<5.00							
Chloroform	10E0214			ug/L	N/A	1.00	<1.00							
Chloromethane (Methyl chloride)	10E0214			ug/L	N/A	5.00	<5.00							
Chloroprene	10E0214			ug/L	N/A	5.00	<5.00							
4-Chlorotoluene	10E0214			ug/L	N/A	1.00	<1.00							
2-Chlorotoluene	10E0214			ug/L	N/A	1.00	<1.00							
Cyclohexane	10E0214			ug/L	N/A	5.00	<5.00							
Dibromochloromethane (Chlorodibromomethane)	10E0214			ug/L	N/A	1.00	<1.00							
1,2-Dibromo-3-chloropropane	10E0214			ug/L	N/A	5.00	<5.00							
1,2-Dibromoethane (EDB)	10E0214			ug/L	N/A	5.00	<5.00							
Dibromomethane	10E0214			ug/L	N/A	1.00	<1.00							
trans-1,4-Dichloro-2-butene	10E0214			ug/L	N/A	5.00	<5.00							
1,2-Dichlorobenzene	10E0214			ug/L	N/A	1.00	<1.00							
1,4-Dichlorobenzene	10E0214			ug/L	N/A	1.00	<1.00							
1,3-Dichlorobenzene	10E0214			ug/L	N/A	1.00	<1.00							
Dichlorodifluoromethane	10E0214			ug/L	N/A	1.00	<1.00							

Burgess & Niple (Landfill)	Work Order:	DTD1220	Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)	Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28		
Michael Akins				

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds by GC/MS														
1,1-Dichloroethane	10E0214			ug/L	N/A	1.00	<1.00							
1,2-Dichloroethane	10E0214			ug/L	N/A	1.00	<1.00							
cis-1,2-Dichloroethene	10E0214			ug/L	N/A	1.00	<1.00							
1,2-Dichloroethene (total)	10E0214			ug/L	N/A	2.00	<2.00							
trans-1,2-Dichloroethene	10E0214			ug/L	N/A	1.00	<1.00							
1,1-Dichloroethene	10E0214			ug/L	N/A	1.00	<1.00							
1,3-Dichloropropane	10E0214			ug/L	N/A	1.00	<1.00							
2,2-Dichloropropane	10E0214			ug/L	N/A	1.00	<1.00							
1,2-Dichloropropane	10E0214			ug/L	N/A	1.00	<1.00							
1,3-Dichloropropene (total)	10E0214			ug/L	N/A	2.00	<2.00							
1,1-Dichloropropene	10E0214			ug/L	N/A	1.00	<1.00							
cis-1,3-Dichloropropene	10E0214			ug/L	N/A	1.00	<1.00							
trans-1,3-Dichloropropene	10E0214			ug/L	N/A	1.00	<1.00							
Diethyl ether	10E0214			ug/L	N/A	5.00	<5.00							
Ethyl acetate	10E0214			ug/L	N/A	5.00	<5.00							
Ethylbenzene	10E0214			ug/L	N/A	1.00	<1.00							
Ethyl methacrylate	10E0214			ug/L	N/A	5.00	<5.00							
Hexachlorobutadiene	10E0214			ug/L	N/A	5.00	<5.00							
n-Hexane	10E0214			ug/L	N/A	5.00	<5.00							
2-Hexanone	10E0214			ug/L	N/A	10.0	<10.0							
Iodomethane	10E0214			ug/L	N/A	5.00	<5.00							
Isopropylbenzene (Cumene)	10E0214			ug/L	N/A	1.00	<1.00							
p-Isopropyltoluene	10E0214			ug/L	N/A	1.00	<1.00							
Methacrylonitrile	10E0214			ug/L	N/A	5.00	<5.00							
Methyl tert-butyl ether	10E0214			ug/L	N/A	1.00	<1.00							
Methylene chloride	10E0214			ug/L	N/A	5.00	<5.00							
Methyl methacrylate	10E0214			ug/L	N/A	5.00	<5.00							
4-Methyl-2-pentanone (MIBK)	10E0214			ug/L	N/A	12.5	<12.5							
Naphthalene	10E0214			ug/L	N/A	5.00	<5.00							
2-Nitropropane	10E0214			ug/L	N/A	5.00	<5.00							
Pentachloroethane	10E0214			ug/L	N/A	5.00	<5.00							
Propionitrile	10E0214			ug/L	N/A	50.0	<50.0							
n-Propylbenzene	10E0214			ug/L	N/A	1.00	<1.00							
Styrene	10E0214			ug/L	N/A	1.00	<1.00							
1,1,1,2-Tetrachloroethane	10E0214			ug/L	N/A	1.00	<1.00							
1,1,2,2-Tetrachloroethane	10E0214			ug/L	N/A	1.00	<1.00							
Tetrachloroethene	10E0214			ug/L	N/A	1.00	<1.00							
Toluene	10E0214			ug/L	N/A	1.00	<1.00							
1,2,3-Trichlorobenzene	10E0214			ug/L	N/A	5.00	<5.00							
1,2,4-Trichlorobenzene	10E0214			ug/L	N/A	5.00	<5.00							
1,1,1-Trichloroethane	10E0214			ug/L	N/A	1.00	<1.00							
1,1,2-Trichloroethane	10E0214			ug/L	N/A	1.00	<1.00							
Trichloroethene	10E0214			ug/L	N/A	1.00	<1.00							
Trichlorofluoromethane	10E0214			ug/L	N/A	1.00	<1.00							
1,2,3-Trichloropropane	10E0214			ug/L	N/A	5.00	<5.00							

Burgess & Niple (Landfill)	Work Order:	DTD1220		Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)		Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28			
Michael Akins					

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds by GC/MS														
1,1,2-Trichlorotrifluoroethane	10E0214			ug/L	N/A	1.00	<1.00							
1,2,4-Trimethylbenzene	10E0214			ug/L	N/A	1.00	<1.00							
1,3,5-Trimethylbenzene	10E0214			ug/L	N/A	1.00	<1.00							
Vinyl Acetate	10E0214			ug/L	N/A	5.00	<5.00							
Vinyl chloride	10E0214			ug/L	N/A	1.00	<1.00							
m,p-Xylene	10E0214			ug/L	N/A	2.00	<2.00							
o-Xylene	10E0214			ug/L	N/A	1.00	<1.00							
Xylenes, Total	10E0214			ug/L	N/A	2.00	<2.00							
Surrogate: 1,2-Dichloroethane-d4	*10E0214*			ug/L					*102*		*80-120*			
Surrogate: Dibromofluoromethane	*10E0214*			ug/L					*97*		*80-120*			
Surrogate: Toluene-d8	*10E0214*			ug/L					*98*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*10E0214*			ug/L					*99*		*80-120*			
Acetone	10E0226			ug/L	N/A	20.0	<20.0							
Acrolein	10E0226			ug/L	N/A	50.0	<50.0							
Acrylonitrile	10E0226			ug/L	N/A	50.0	<50.0							
Allyl chloride	10E0226			ug/L	N/A	5.00	<5.00							
Benzene	10E0226			ug/L	N/A	1.00	<1.00							
Bromobenzene	10E0226			ug/L	N/A	1.00	<1.00							
Bromochloromethane	10E0226			ug/L	N/A	1.00	<1.00							
Bromodichloromethane (Dichlorobromomethane)	10E0226			ug/L	N/A	1.00	<1.00							
Bromoform	10E0226			ug/L	N/A	1.00	<1.00							
Bromomethane (Methyl bromide)	10E0226			ug/L	N/A	5.00	<5.00							
2-Butanone (MEK)	10E0226			ug/L	N/A	12.5	<12.5							
tert-Butylbenzene	10E0226			ug/L	N/A	1.00	<1.00							
sec-Butylbenzene	10E0226			ug/L	N/A	1.00	<1.00							
n-Butylbenzene	10E0226			ug/L	N/A	1.00	<1.00							
Carbon disulfide	10E0226			ug/L	N/A	1.00	<1.00							
Carbon tetrachloride	10E0226			ug/L	N/A	1.00	<1.00							
Chlorobenzene	10E0226			ug/L	N/A	1.00	<1.00							
Chloroethane	10E0226			ug/L	N/A	5.00	<5.00							
2-Chloroethylvinyl ether	10E0226			ug/L	N/A	5.00	<5.00							
Chloroform	10E0226			ug/L	N/A	1.00	<1.00							
Chloromethane (Methyl chloride)	10E0226			ug/L	N/A	5.00	<5.00							
Chloroprene	10E0226			ug/L	N/A	5.00	<5.00							
4-Chlorotoluene	10E0226			ug/L	N/A	1.00	<1.00							
2-Chlorotoluene	10E0226			ug/L	N/A	1.00	<1.00							
Cyclohexane	10E0226			ug/L	N/A	5.00	<5.00							
Dibromochloromethane (Chlorodibromomethane)	10E0226			ug/L	N/A	1.00	<1.00							
1,2-Dibromo-3-chloropropane	10E0226			ug/L	N/A	5.00	<5.00							
1,2-Dibromoethane (EDB)	10E0226			ug/L	N/A	5.00	<5.00							
Dibromomethane	10E0226			ug/L	N/A	1.00	<1.00							
trans-1,4-Dichloro-2-butene	10E0226			ug/L	N/A	5.00	<5.00							
1,2-Dichlorobenzene	10E0226			ug/L	N/A	1.00	<1.00							
1,4-Dichlorobenzene	10E0226			ug/L	N/A	1.00	<1.00							

Burgess & Niple (Landfill)	Work Order:	DTD1220	Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)	Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28		
Michael Akins				

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds by GC/MS														
1,3-Dichlorobenzene	10E0226			ug/L	N/A	1.00	<1.00							
Dichlorodifluoromethane	10E0226			ug/L	N/A	1.00	<1.00							
1,1-Dichloroethane	10E0226			ug/L	N/A	1.00	<1.00							
1,2-Dichloroethane	10E0226			ug/L	N/A	1.00	<1.00							
cis-1,2-Dichloroethene	10E0226			ug/L	N/A	1.00	<1.00							
1,2-Dichloroethene (total)	10E0226			ug/L	N/A	2.00	<2.00							
trans-1,2-Dichloroethene	10E0226			ug/L	N/A	1.00	<1.00							
1,1-Dichloroethene	10E0226			ug/L	N/A	1.00	<1.00							
1,3-Dichloropropane	10E0226			ug/L	N/A	1.00	<1.00							
2,2-Dichloropropane	10E0226			ug/L	N/A	1.00	<1.00							
1,2-Dichloropropane	10E0226			ug/L	N/A	1.00	<1.00							
1,3-Dichloropropene (total)	10E0226			ug/L	N/A	2.00	<2.00							
1,1-Dichloropropene	10E0226			ug/L	N/A	1.00	<1.00							
cis-1,3-Dichloropropene	10E0226			ug/L	N/A	1.00	<1.00							
trans-1,3-Dichloropropene	10E0226			ug/L	N/A	1.00	<1.00							
Diethyl ether	10E0226			ug/L	N/A	5.00	<5.00							
Ethyl acetate	10E0226			ug/L	N/A	5.00	<5.00							
Ethylbenzene	10E0226			ug/L	N/A	1.00	<1.00							
Ethyl methacrylate	10E0226			ug/L	N/A	5.00	<5.00							
Hexachlorobutadiene	10E0226			ug/L	N/A	5.00	<5.00							
n-Hexane	10E0226			ug/L	N/A	5.00	<5.00							
2-Hexanone	10E0226			ug/L	N/A	10.0	<10.0							
Iodomethane	10E0226			ug/L	N/A	5.00	<5.00							
Isopropylbenzene (Cumene)	10E0226			ug/L	N/A	1.00	<1.00							
p-Isopropyltoluene	10E0226			ug/L	N/A	1.00	<1.00							
Methacrylonitrile	10E0226			ug/L	N/A	5.00	<5.00							
Methyl tert-butyl ether	10E0226			ug/L	N/A	1.00	<1.00							
Methylene chloride	10E0226			ug/L	N/A	5.00	<5.00							
Methyl methacrylate	10E0226			ug/L	N/A	5.00	<5.00							
4-Methyl-2-pentanone (MIBK)	10E0226			ug/L	N/A	12.5	<12.5							
Naphthalene	10E0226			ug/L	N/A	5.00	<5.00							
2-Nitropropane	10E0226			ug/L	N/A	5.00	<5.00							
Pentachloroethane	10E0226			ug/L	N/A	5.00	<5.00							
Propionitrile	10E0226			ug/L	N/A	50.0	<50.0							
n-Propylbenzene	10E0226			ug/L	N/A	1.00	<1.00							
Styrene	10E0226			ug/L	N/A	1.00	<1.00							
1,1,1,2-Tetrachloroethane	10E0226			ug/L	N/A	1.00	<1.00							
1,1,2,2-Tetrachloroethane	10E0226			ug/L	N/A	1.00	<1.00							
Tetrachloroethene	10E0226			ug/L	N/A	1.00	<1.00							
Toluene	10E0226			ug/L	N/A	1.00	<1.00							
1,2,3-Trichlorobenzene	10E0226			ug/L	N/A	5.00	<5.00							
1,2,4-Trichlorobenzene	10E0226			ug/L	N/A	5.00	<5.00							
1,1,1-Trichloroethane	10E0226			ug/L	N/A	1.00	<1.00							
1,1,2-Trichloroethane	10E0226			ug/L	N/A	1.00	<1.00							
Trichloroethene	10E0226			ug/L	N/A	1.00	<1.00							

Burgess & Niple (Landfill)	Work Order:	DTD1220		Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)		Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28			
Michael Akins					

LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds by GC/MS														
Trichlorofluoromethane	10E0226			ug/L	N/A	1.00	<1.00							
1,2,3-Trichloropropane	10E0226			ug/L	N/A	5.00	<5.00							
1,1,2-Trichlorotrifluoroethane	10E0226			ug/L	N/A	1.00	<1.00							
1,2,4-Trimethylbenzene	10E0226			ug/L	N/A	1.00	<1.00							
1,3,5-Trimethylbenzene	10E0226			ug/L	N/A	1.00	<1.00							
Vinyl Acetate	10E0226			ug/L	N/A	5.00	<5.00							
Vinyl chloride	10E0226			ug/L	N/A	1.00	<1.00							
m,p-Xylene	10E0226			ug/L	N/A	2.00	<2.00							
o-Xylene	10E0226			ug/L	N/A	1.00	<1.00							
Xylenes, Total	10E0226			ug/L	N/A	2.00	<2.00							
Surrogate: 1,2-Dichloroethane-d4	*10E0226*			ug/L					*102*		*80-120*			
Surrogate: Dibromofluoromethane	*10E0226*			ug/L					*96*		*80-120*			
Surrogate: Toluene-d8	*10E0226*			ug/L					*98*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*10E0226*			ug/L					*98*		*80-120*			

Burgess & Niple (Landfill)	Work Order:	DTD1220	Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)	Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28		
Michael Akins				

LABORATORY DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
General Chemistry Parameters													
QC Source Sample: DTD1220-01													
Chemical Oxygen Demand	10D1110	28.1		mg/L	N/A	10.0	23.3				18	200	
QC Source Sample: DTD1189-01													
Ammonia, Undistilled as N	10D1174	1.96		mg/L	N/A	0.500	1.90				3	20	
QC Source Sample: DTD1056-20													
Chloride	10D1197	35.3		mg/L	N/A	1.00	2.50				174	200	
QC Source Sample: DTD1323-02													
Ammonia, Undistilled as N	10E0069	2.06		mg/L	N/A	1.00	1.96				5	20	

Burgess & Niple (Landfill)	Work Order:	DTD1220	Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)	Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28		
Michael Akins				

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
General Chemistry Parameters														
Chemical Oxygen Demand	10D1110		30.0	mg/L	N/A	10.0	29.2		97		90-110			
Ammonia, Undistilled as N	10D1174		0.500	mg/L	N/A	0.0500	0.483		97		90-110			
Chloride	10D1197		20.0	mg/L	N/A	1.00	20.1		100		90-110			
Ammonia, Undistilled as N	10E0069		0.500	mg/L	N/A	0.0500	0.482		96		90-110			
Total Metals														
Sodium	10D1119		21.0	mg/L	N/A	1.00	21.0		100		80-120			
Volatile Organic Compounds by GC/MS														
Acetone	10E0214		50.0	ug/L	N/A	20.0	47.1		94		40-142			
Acrylonitrile	10E0214		100	ug/L	N/A	50.0	92.1		92		56-123			
Benzene	10E0214		20.0	ug/L	N/A	1.00	20.4		102		79-120			
Bromobenzene	10E0214		20.0	ug/L	N/A	1.00	19.4		97		80-120			
Bromochloromethane	10E0214		20.0	ug/L	N/A	1.00	19.4		97		77-122			
Bromodichloromethane (Dichlorobromomethane)	10E0214		20.0	ug/L	N/A	1.00	21.4		107		76-121			
Bromoform	10E0214		20.0	ug/L	N/A	1.00	16.0		80		69-120			
Bromomethane (Methyl bromide)	10E0214		20.0	ug/L	N/A	5.00	16.8		84		64-120			
2-Butanone (MEK)	10E0214		50.0	ug/L	N/A	12.5	47.4		95		69-121			
tert-Butylbenzene	10E0214		20.0	ug/L	N/A	1.00	19.9		99		78-131			
sec-Butylbenzene	10E0214		20.0	ug/L	N/A	1.00	20.1		101		76-126			
n-Butylbenzene	10E0214		20.0	ug/L	N/A	1.00	20.6		103		76-144			
Carbon disulfide	10E0214		20.0	ug/L	N/A	1.00	16.4		82		75-121			
Carbon tetrachloride	10E0214		20.0	ug/L	N/A	1.00	20.6		103		70-129			
Chlorobenzene	10E0214		20.0	ug/L	N/A	1.00	19.6		98		78-120			
Chloroethane	10E0214		20.0	ug/L	N/A	5.00	17.4		87		67-120			
2-Chloroethylvinyl ether	10E0214		20.0	ug/L	N/A	5.00	15.5		78		10-212			
Chloroform	10E0214		20.0	ug/L	N/A	1.00	19.8		99		77-120			
Chloromethane (Methyl chloride)	10E0214		20.0	ug/L	N/A	5.00	14.9		74		58-120			
4-Chlorotoluene	10E0214		20.0	ug/L	N/A	1.00	19.8		99		79-120			
2-Chlorotoluene	10E0214		20.0	ug/L	N/A	1.00	19.9		99		79-120			
Dibromochloromethane (Chlorodibromomethane)	10E0214		20.0	ug/L	N/A	1.00	17.7		88		76-123			
1,2-Dibromo-3-chloropropane	10E0214		20.0	ug/L	N/A	5.00	18.3		91		68-135			
1,2-Dibromoethane (EDB)	10E0214		20.0	ug/L	N/A	5.00	20.2		101		74-120			
Dibromomethane	10E0214		20.0	ug/L	N/A	1.00	19.2		96		79-120			
trans-1,4-Dichloro-2-butene	10E0214		20.0	ug/L	N/A	5.00	11.2		56		35-128			
1,2-Dichlorobenzene	10E0214		20.0	ug/L	N/A	1.00	20.4		102		78-123			
1,4-Dichlorobenzene	10E0214		20.0	ug/L	N/A	1.00	19.6		98		74-120			
1,3-Dichlorobenzene	10E0214		20.0	ug/L	N/A	1.00	19.6		98		76-121			
Dichlorodifluoromethane	10E0214		20.0	ug/L	N/A	1.00	10.1		51		10-245			
1,1-Dichloroethane	10E0214		20.0	ug/L	N/A	1.00	19.2		96		79-120			
1,2-Dichloroethane	10E0214		20.0	ug/L	N/A	1.00	20.4		102		75-120			
cis-1,2-Dichloroethene	10E0214		20.0	ug/L	N/A	1.00	19.6		98		80-120			
trans-1,2-Dichloroethene	10E0214		20.0	ug/L	N/A	1.00	19.0		95		79-120			

Burgess & Niple (Landfill)	Work Order:	DTD1220		Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)		Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28			
Michael Akins					

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds by GC/MS														
1,1-Dichloroethene	10E0214		20.0	ug/L	N/A	1.00	17.9		90		71-121			
1,3-Dichloropropane	10E0214		20.0	ug/L	N/A	1.00	19.8		99		74-120			
2,2-Dichloropropane	10E0214		20.0	ug/L	N/A	1.00	18.2		91		65-133			
1,2-Dichloropropane	10E0214		20.0	ug/L	N/A	1.00	20.8		104		80-120			
1,1-Dichloropropene	10E0214		20.0	ug/L	N/A	1.00	20.2		101		80-123			
cis-1,3-Dichloropropene	10E0214		20.0	ug/L	N/A	1.00	18.3		91		80-120			
trans-1,3-Dichloropropene	10E0214		20.0	ug/L	N/A	1.00	17.4		87		74-120			
Ethylbenzene	10E0214		20.0	ug/L	N/A	1.00	19.6		98		79-120			
Hexachlorobutadiene	10E0214		20.0	ug/L	N/A	5.00	23.2		116		74-145			
n-Hexane	10E0214		20.0	ug/L	N/A	5.00	16.1		81		57-180			
2-Hexanone	10E0214		50.0	ug/L	N/A	10.0	45.8		92		59-129			
Iodomethane	10E0214		20.0	ug/L	N/A	5.00	14.6		73		53-120			
Isopropylbenzene (Cumene)	10E0214		20.0	ug/L	N/A	1.00	18.2		91		80-121			
p-Isopropyltoluene	10E0214		20.0	ug/L	N/A	1.00	19.9		100		80-128			
Methyl tert-butyl ether	10E0214		20.0	ug/L	N/A	1.00	19.8		99		75-122			
Methylene chloride	10E0214		20.0	ug/L	N/A	5.00	22.4		112		76-120			
4-Methyl-2-pentanone (MIBK)	10E0214		50.0	ug/L	N/A	12.5	46.5		93		69-122			
n-Propylbenzene	10E0214		20.0	ug/L	N/A	1.00	19.1		96		76-127			
Styrene	10E0214		20.0	ug/L	N/A	1.00	20.0		100		76-120			
1,1,1,2-Tetrachloroethane	10E0214		20.0	ug/L	N/A	1.00	18.1		90		77-121			
1,1,2,2-Tetrachloroethane	10E0214		20.0	ug/L	N/A	1.00	19.1		95		74-120			
Tetrachloroethene	10E0214		20.0	ug/L	N/A	1.00	20.2		101		62-128			
Toluene	10E0214		20.0	ug/L	N/A	1.00	19.6		98		79-120			
1,2,4-Trichlorobenzene	10E0214		20.0	ug/L	N/A	5.00	30.0		150		68-159			
1,1,1-Trichloroethane	10E0214		20.0	ug/L	N/A	1.00	20.7		103		74-121			
1,1,2-Trichloroethane	10E0214		20.0	ug/L	N/A	1.00	19.8		99		75-120			
Trichloroethene	10E0214		20.0	ug/L	N/A	1.00	20.3		102		77-120			
Trichlorofluoromethane	10E0214		20.0	ug/L	N/A	1.00	17.5		88		71-136			
1,2,3-Trichloropropane	10E0214		20.0	ug/L	N/A	5.00	19.6		98		74-120			
1,2,4-Trimethylbenzene	10E0214		20.0	ug/L	N/A	1.00	19.5		98		72-132			
1,3,5-Trimethylbenzene	10E0214		20.0	ug/L	N/A	1.00	19.8		99		76-126			
Vinyl Acetate	10E0214		20.0	ug/L	N/A	5.00	15.4		77		64-129			
Vinyl chloride	10E0214		20.0	ug/L	N/A	1.00	15.0		75		65-126			
Surrogate: 1,2-Dichloroethane-d4	*10E0214*			ug/L					*100*		*80-120*			
Surrogate: Dibromofluoromethane	*10E0214*			ug/L					*99*		*80-120*			
Surrogate: Toluene-d8	*10E0214*			ug/L					*99*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*10E0214*			ug/L					*99*		*80-120*			
Acetone	10E0226		50.0	ug/L	N/A	20.0	52.2		104		40-142			
Acrylonitrile	10E0226		100	ug/L	N/A	50.0	102		102		56-123			
Benzene	10E0226		20.0	ug/L	N/A	1.00	20.0		100		79-120			
Bromobenzene	10E0226		20.0	ug/L	N/A	1.00	20.6		103		80-120			
Bromochloromethane	10E0226		20.0	ug/L	N/A	1.00	20.0		100		77-122			
Bromodichloromethane (Dichlorobromomethane)	10E0226		20.0	ug/L	N/A	1.00	22.3		111		76-121			
Bromoform	10E0226		20.0	ug/L	N/A	1.00	17.3		87		69-120			

Burgess & Niple (Landfill)
5085 Reed Rd.
Columbus, OH 43220
Michael Akins

Work Order: DTD1220
Project: Wayne Reclamation & Recycling (Indiana)
Project Number: P20080417S28

Received: 04/28/10
Reported: 05/13/10 16:38

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds by GC/MS														
Bromomethane (Methyl bromide)	10E0226		20.0	ug/L	N/A	5.00	16.1		80		64-120			
2-Butanone (MEK)	10E0226		50.0	ug/L	N/A	12.5	53.8		108		69-121			
tert-Butylbenzene	10E0226		20.0	ug/L	N/A	1.00	18.2		91		78-131			
sec-Butylbenzene	10E0226		20.0	ug/L	N/A	1.00	18.4		92		76-126			
n-Butylbenzene	10E0226		20.0	ug/L	N/A	1.00	18.8		94		76-144			
Carbon tetrachloride	10E0226		20.0	ug/L	N/A	1.00	18.7		93		70-129			
Chlorobenzene	10E0226		20.0	ug/L	N/A	1.00	20.1		101		78-120			
Chloroethane	10E0226		20.0	ug/L	N/A	5.00	16.2		81		67-120			
2-Chloroethylvinyl ether	10E0226		20.0	ug/L	N/A	5.00	17.5		87		10-212			
Chloroform	10E0226		20.0	ug/L	N/A	1.00	19.9		99		77-120			
Chloromethane (Methyl chloride)	10E0226		20.0	ug/L	N/A	5.00	13.4		67		58-120			
4-Chlorotoluene	10E0226		20.0	ug/L	N/A	1.00	19.6		98		79-120			
2-Chlorotoluene	10E0226		20.0	ug/L	N/A	1.00	19.6		98		79-120			
Dibromochloromethane (Chlorodibromomethane)	10E0226		20.0	ug/L	N/A	1.00	19.2		96		76-123			
1,2-Dibromo-3-chloropropane	10E0226		20.0	ug/L	N/A	5.00	21.0		105		68-135			
1,2-Dibromoethane (EDB)	10E0226		20.0	ug/L	N/A	5.00	22.4		112		74-120			
Dibromomethane	10E0226		20.0	ug/L	N/A	1.00	20.5		102		79-120			
trans-1,4-Dichloro-2-butene	10E0226		20.0	ug/L	N/A	5.00	12.0		60		35-128			
1,2-Dichlorobenzene	10E0226		20.0	ug/L	N/A	1.00	21.9		109		78-123			
1,4-Dichlorobenzene	10E0226		20.0	ug/L	N/A	1.00	20.5		103		74-120			
1,3-Dichlorobenzene	10E0226		20.0	ug/L	N/A	1.00	20.3		102		76-121			
Dichlorodifluoromethane	10E0226		20.0	ug/L	N/A	1.00	7.45		37		10-245			
1,1-Dichloroethane	10E0226		20.0	ug/L	N/A	1.00	18.7		94		79-120			
1,2-Dichloroethane	10E0226		20.0	ug/L	N/A	1.00	21.4		107		75-120			
cis-1,2-Dichloroethene	10E0226		20.0	ug/L	N/A	1.00	19.9		99		80-120			
trans-1,2-Dichloroethene	10E0226		20.0	ug/L	N/A	1.00	18.3		92		79-120			
1,1-Dichloroethene	10E0226		20.0	ug/L	N/A	1.00	16.0		80		71-121			
1,3-Dichloropropane	10E0226		20.0	ug/L	N/A	1.00	22.0		110		74-120			
2,2-Dichloropropane	10E0226		20.0	ug/L	N/A	1.00	16.4		82		65-133			
1,2-Dichloropropane	10E0226		20.0	ug/L	N/A	1.00	20.9		105		80-120			
1,1-Dichloropropene	10E0226		20.0	ug/L	N/A	1.00	18.6		93		80-123			
cis-1,3-Dichloropropene	10E0226		20.0	ug/L	N/A	1.00	19.0		95		80-120			
trans-1,3-Dichloropropene	10E0226		20.0	ug/L	N/A	1.00	18.4		92		74-120			
Ethylbenzene	10E0226		20.0	ug/L	N/A	1.00	19.1		95		79-120			
Hexachlorobutadiene	10E0226		20.0	ug/L	N/A	5.00	22.3		112		74-145			
n-Hexane	10E0226		20.0	ug/L	N/A	5.00	13.8		69		57-180			
2-Hexanone	10E0226		50.0	ug/L	N/A	10.0	56.5		113		59-129			
Iodomethane	10E0226		20.0	ug/L	N/A	5.00	14.2		71		53-120			
Isopropylbenzene (Cumene)	10E0226		20.0	ug/L	N/A	1.00	17.2		86		80-121			
p-Isopropyltoluene	10E0226		20.0	ug/L	N/A	1.00	18.4		92		80-128			
Methyl tert-butyl ether	10E0226		20.0	ug/L	N/A	1.00	21.0		105		75-122			
Methylene chloride	10E0226		20.0	ug/L	N/A	5.00	20.0		100		76-120			
4-Methyl-2-pentanone (MIBK)	10E0226		50.0	ug/L	N/A	12.5	56.5		113		69-122			
n-Propylbenzene	10E0226		20.0	ug/L	N/A	1.00	18.1		91		76-127			
Styrene	10E0226		20.0	ug/L	N/A	1.00	21.0		105		76-120			

Burgess & Niple (Landfill)	Work Order:	DTD1220	Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)	Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28		
Michael Akins				

LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
Volatile Organic Compounds by GC/MS														
1,1,1,2-Tetrachloroethane	10E0226		20.0	ug/L	N/A	1.00	19.0		95		77-121			
1,1,2,2-Tetrachloroethane	10E0226		20.0	ug/L	N/A	1.00	22.6		113		74-120			
Tetrachloroethene	10E0226		20.0	ug/L	N/A	1.00	18.8		94		62-128			
Toluene	10E0226		20.0	ug/L	N/A	1.00	19.0		95		79-120			
1,2,4-Trichlorobenzene	10E0226		20.0	ug/L	N/A	5.00	31.3		157		68-159			
1,1,1-Trichloroethane	10E0226		20.0	ug/L	N/A	1.00	19.2		96		74-121			
1,1,2-Trichloroethane	10E0226		20.0	ug/L	N/A	1.00	22.2		111		75-120			
Trichloroethene	10E0226		20.0	ug/L	N/A	1.00	19.5		97		77-120			
Trichlorofluoromethane	10E0226		20.0	ug/L	N/A	1.00	15.5		78		71-136			
1,2,3-Trichloropropane	10E0226		20.0	ug/L	N/A	5.00	22.9		114		74-120			
1,2,4-Trimethylbenzene	10E0226		20.0	ug/L	N/A	1.00	19.0		95		72-132			
1,3,5-Trimethylbenzene	10E0226		20.0	ug/L	N/A	1.00	18.8		94		76-126			
Vinyl Acetate	10E0226		20.0	ug/L	N/A	5.00	16.2		81		64-129			
Vinyl chloride	10E0226		20.0	ug/L	N/A	1.00	13.4		67		65-126			
Surrogate: 1,2-Dichloroethane-d4	*10E0226*			ug/L					*101*		*80-120*			
Surrogate: Dibromofluoromethane	*10E0226*			ug/L					*99*		*80-120*			
Surrogate: Toluene-d8	*10E0226*			ug/L					*98*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*10E0226*			ug/L					*97*		*80-120*			

Burgess & Niple (Landfill)	Work Order:	DTD1220	Received:	04/28/10
5085 Reed Rd.	Project:	Wayne Reclamation & Recycling (Indiana)	Reported:	05/13/10 16:38
Columbus, OH 43220	Project Number:	P20080417S28		
Michael Akins				

CERTIFICATION SUMMARY

Any abnormalities or departures from sample acceptance policy shall be documented on the Chain of Custody and/or Case Narrative included with this report.

For information concerning certifications of this facility or another TestAmerica facility, please visit our website at www.TestAmericaInc.com

Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC) .

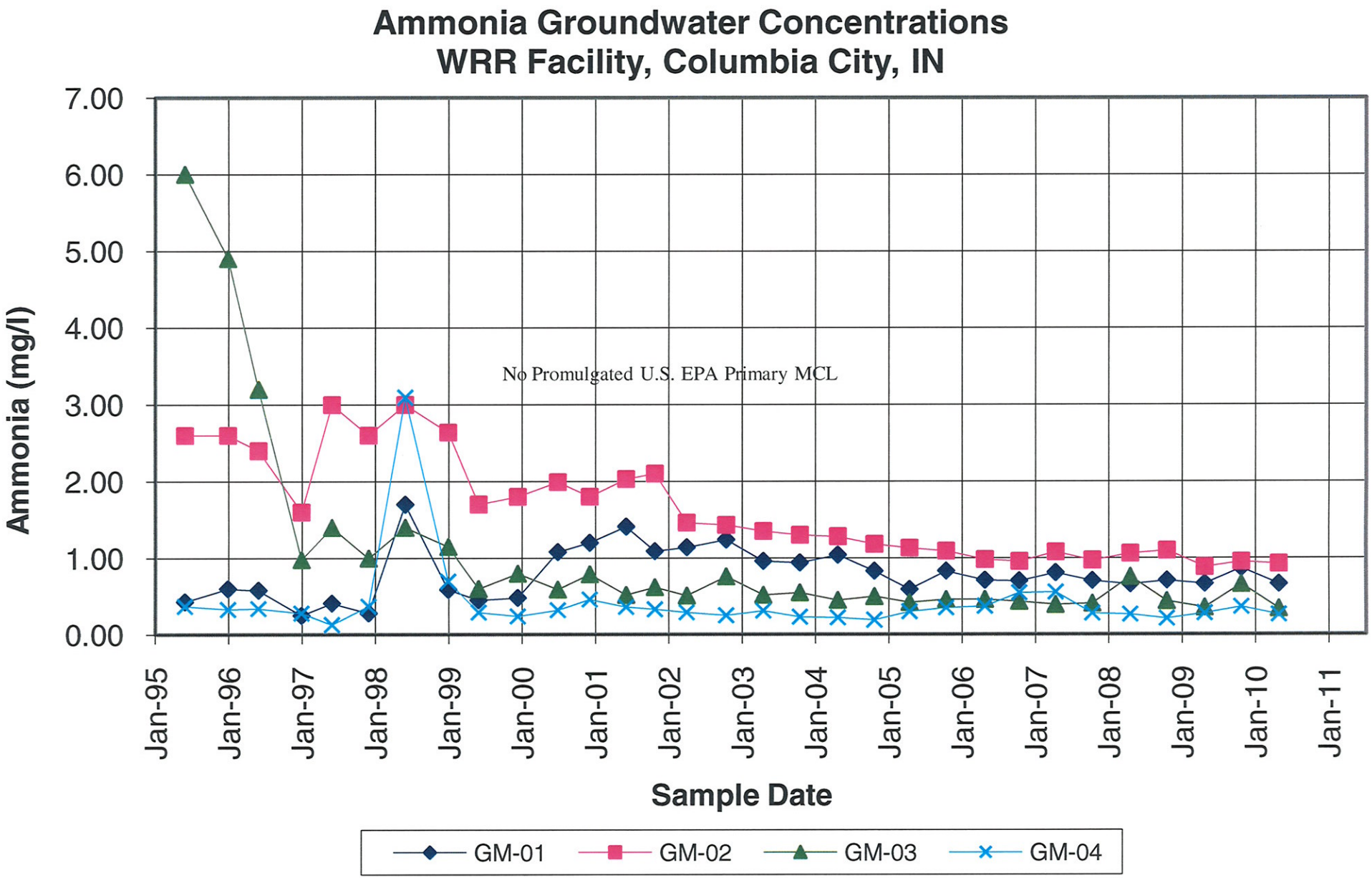
ANALYSIS LOCATIONS

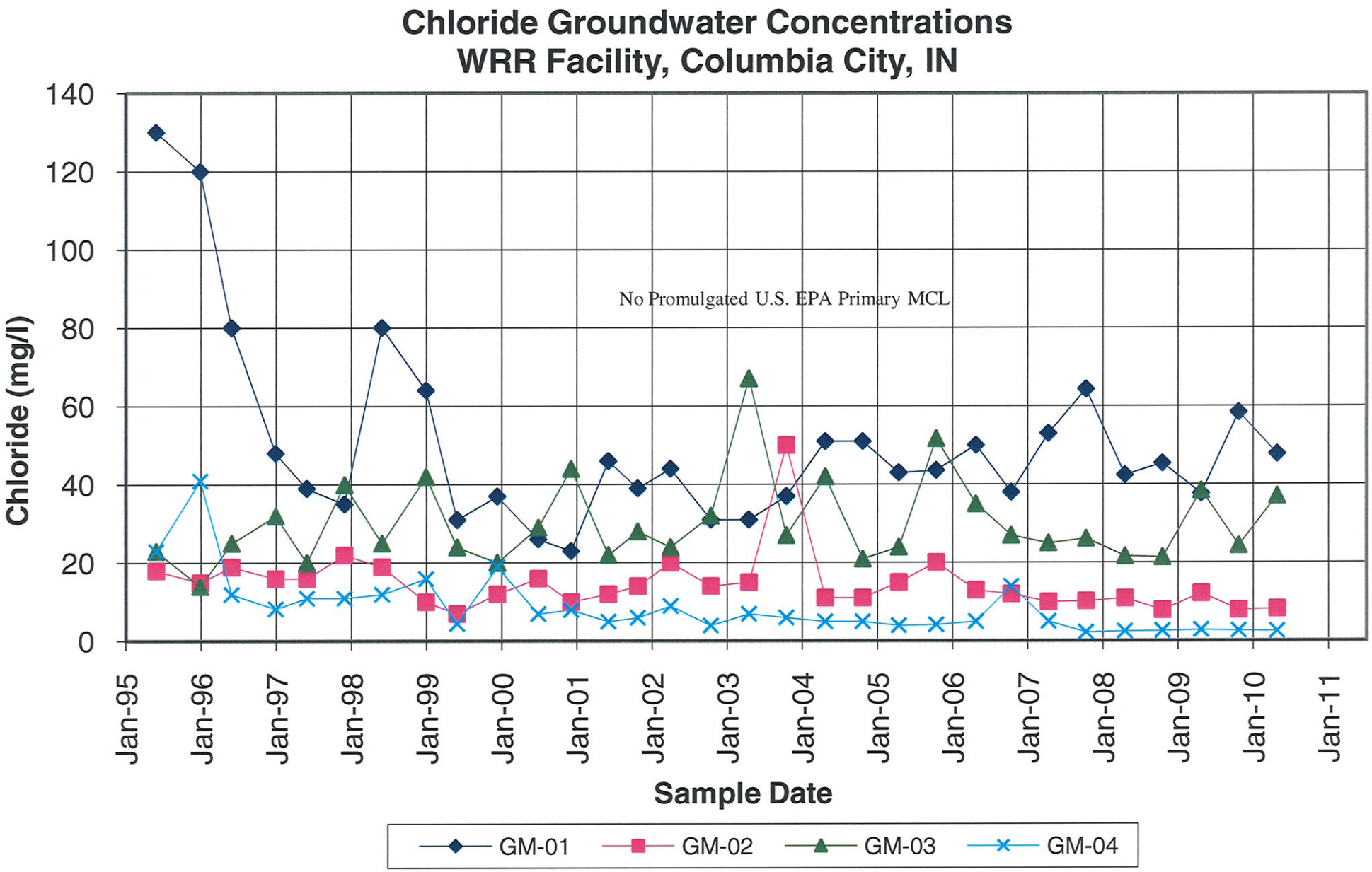
The analyses listed below were analyzed in satellite facilities

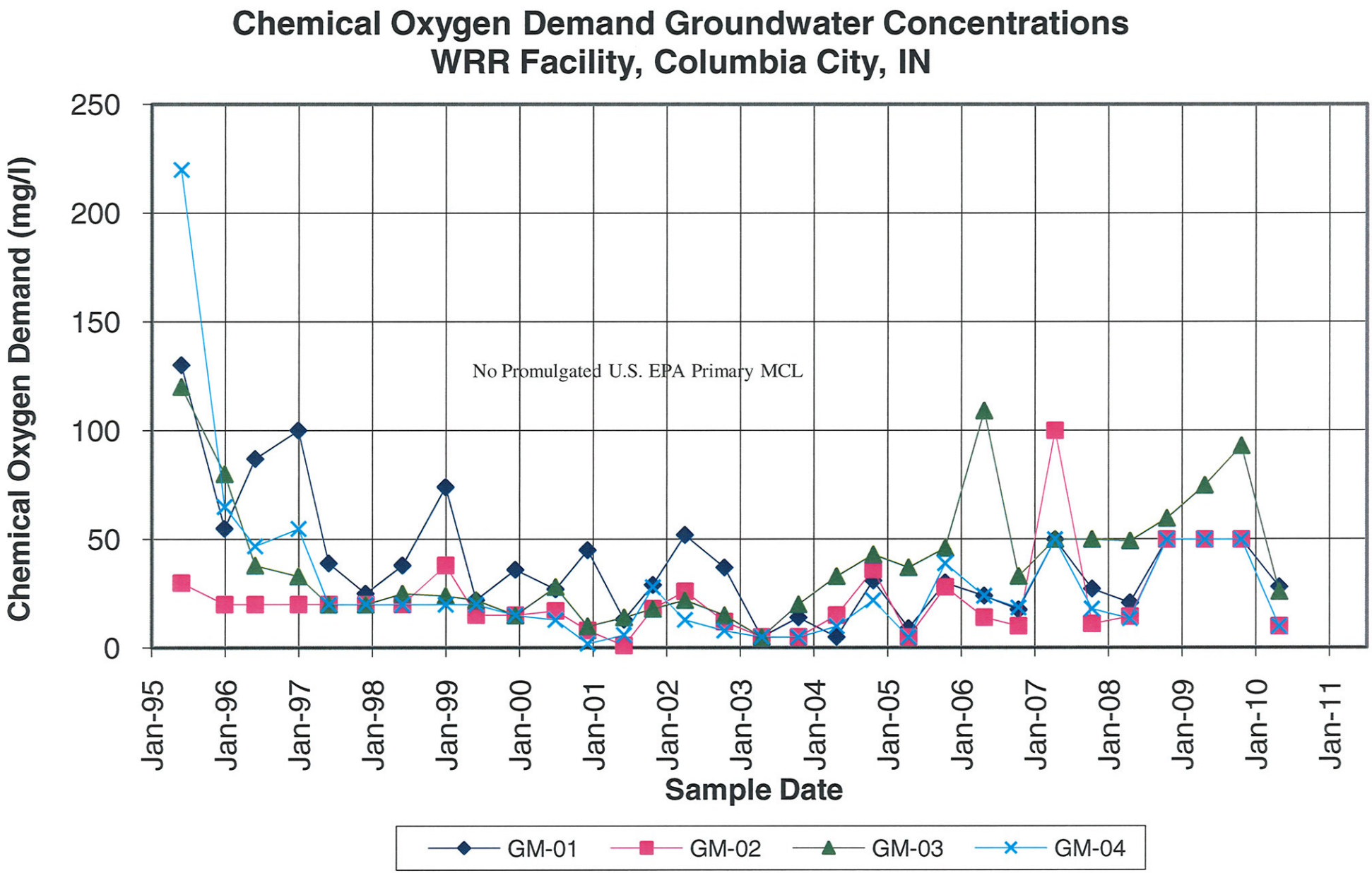
Turbidity - Client Supplied	Water - NonPotable
Temperature - Client Supplied	Water - NonPotable
pH - Client Supplied	Water - NonPotable
Conductance - Client Supplied	Water - NonPotable

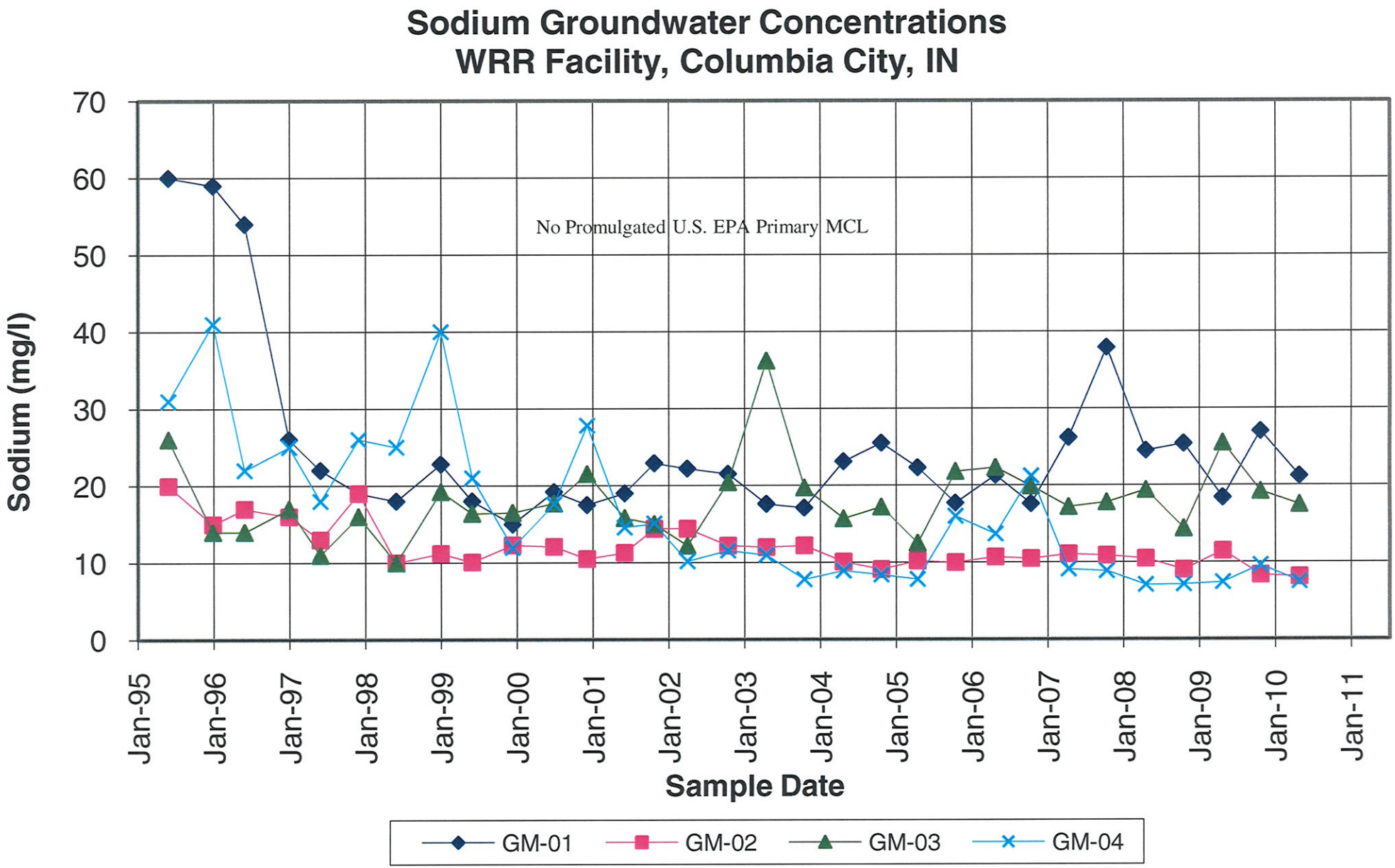
ATTACHMENT 3

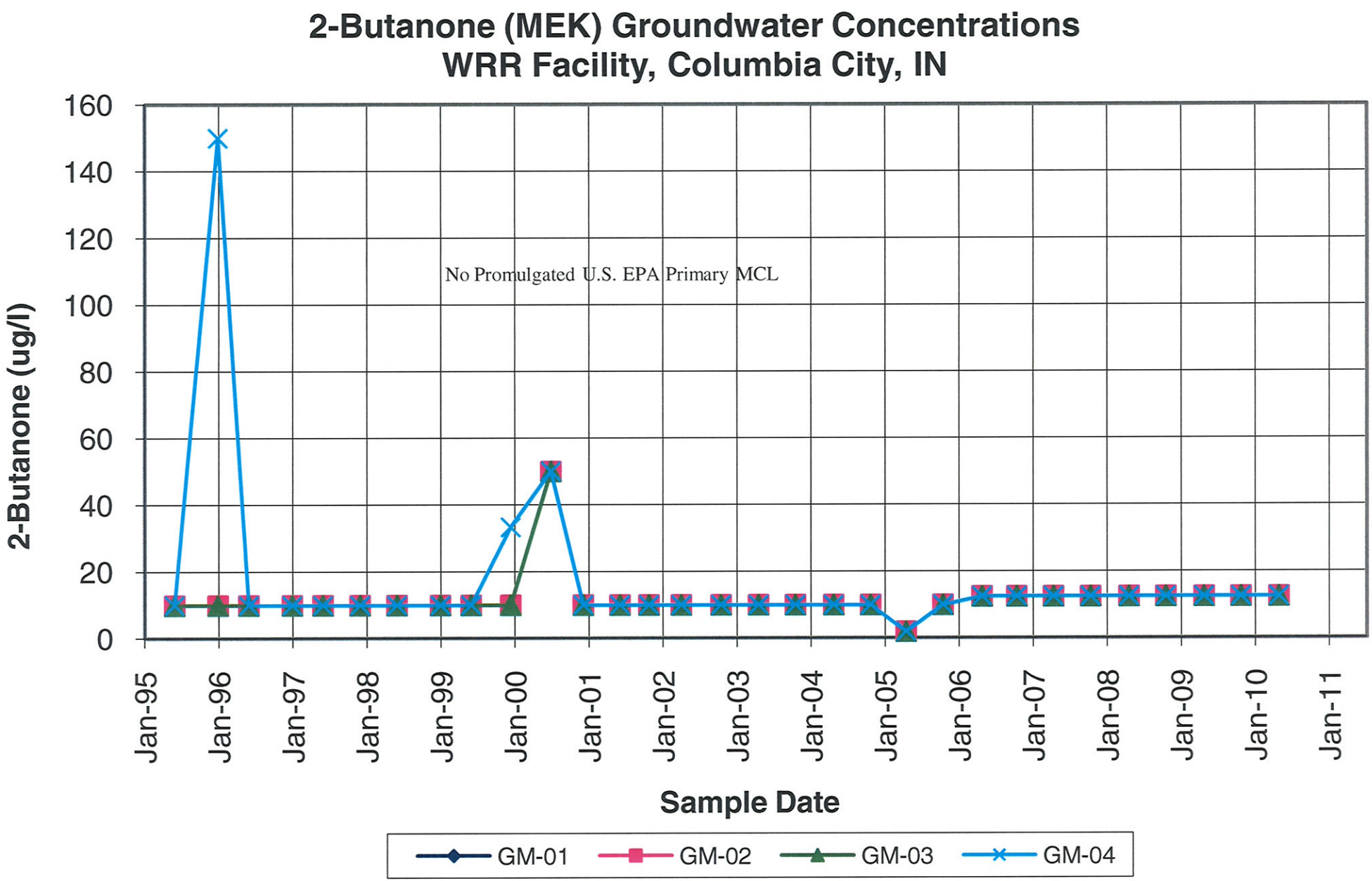
TIME-VERSUS-CONCENTRATION PLOTS

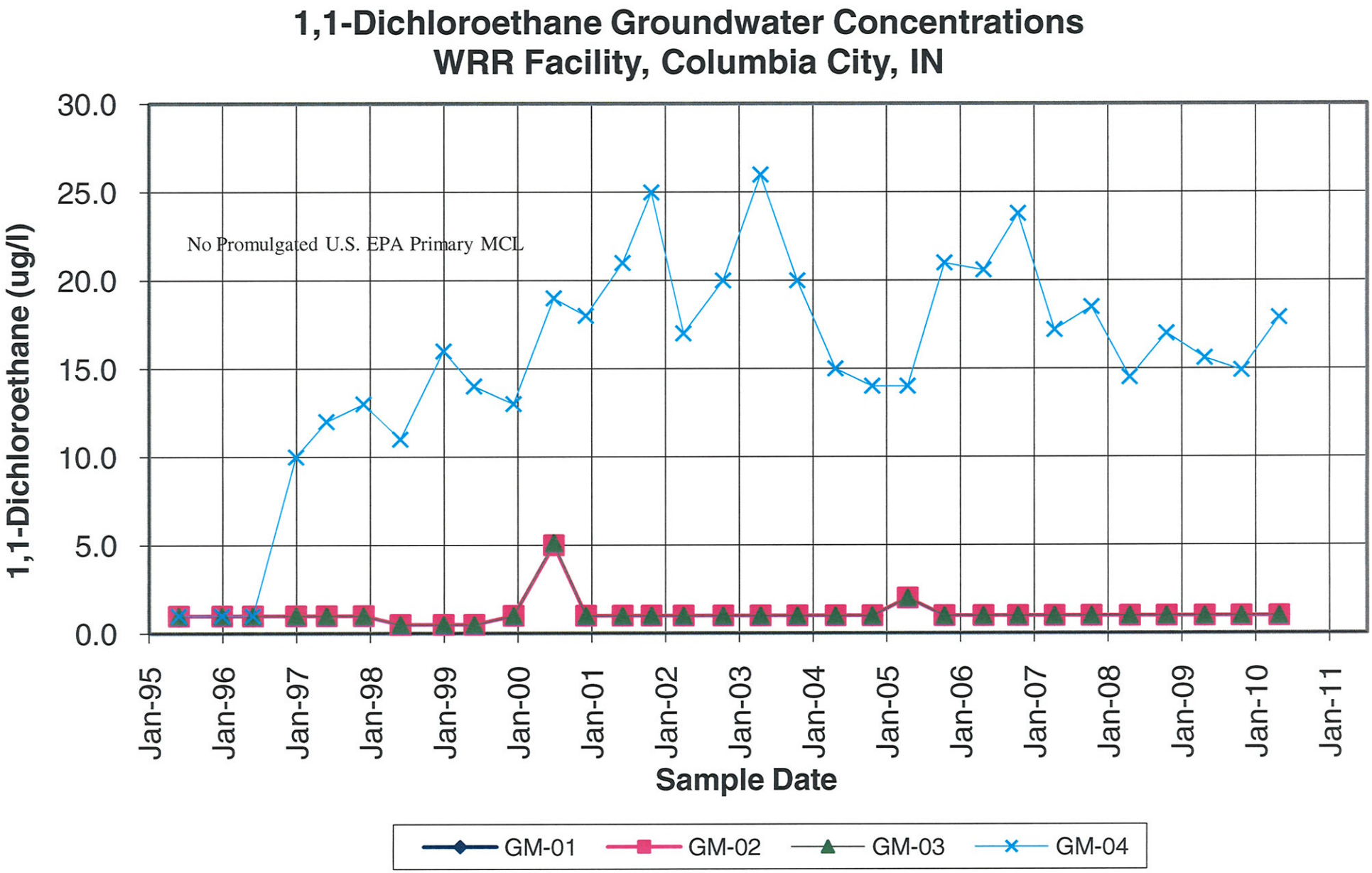

Ammonia Groundwater Concentrations
WRR Facility, Columbia City, IN
Ammonia (mg/l)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
No Promulgated U.S. EPA Primary MCL
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Sample Date
GM-01
GM-02
GM-03
GM-04

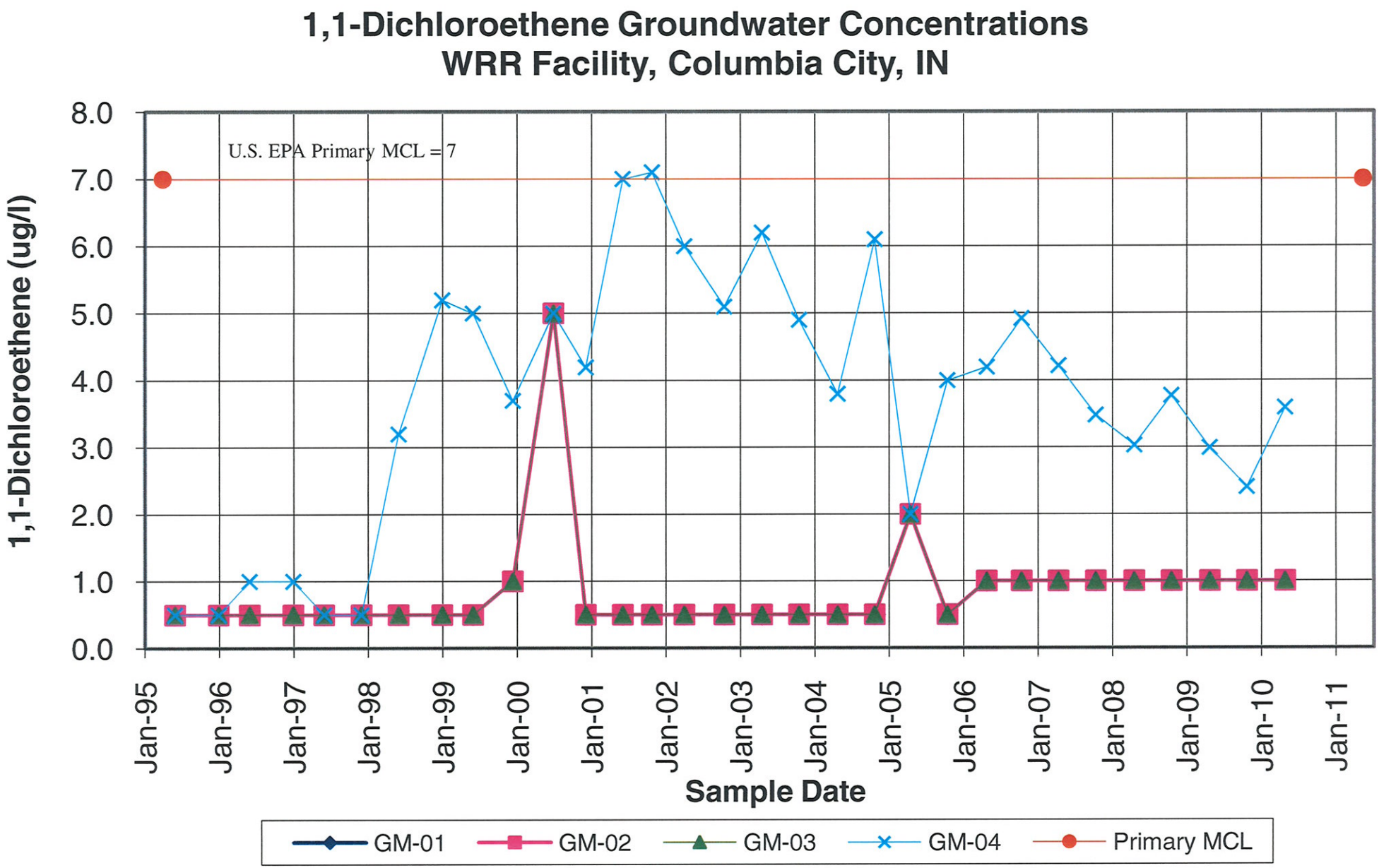

Chloride Groundwater Concentrations
WRR Facility, Columbia City, IN
Chloride (mg/l)
140
120
100
80
60
40
20
0
No Promulgated U.S. EPA Primary MCL
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Sample Date
GM-01
GM-02
GM-03
GM-04

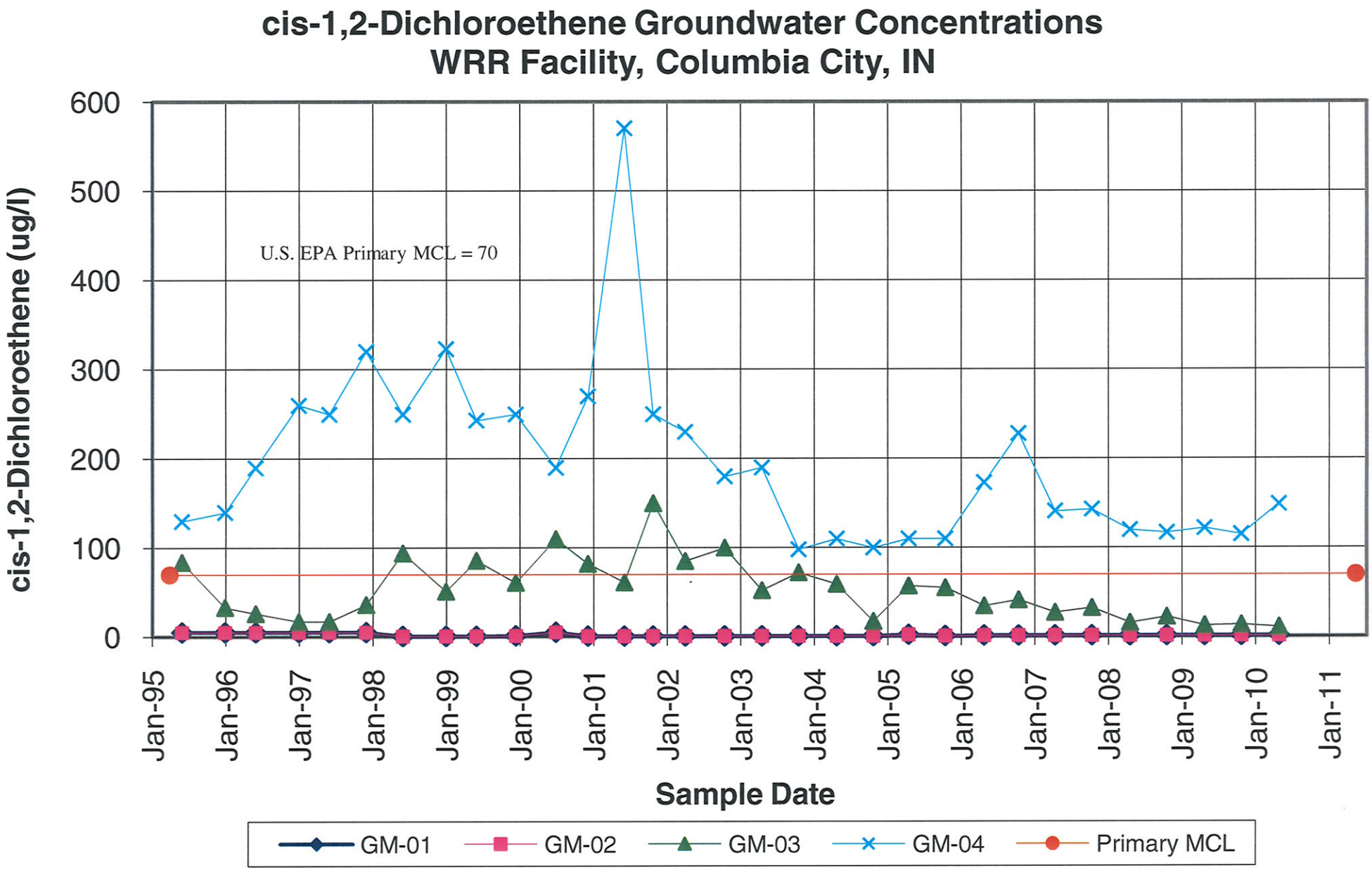

Chemical Oxygen Demand Groundwater Concentrations
WRR Facility, Columbia City, IN
Chemical Oxygen Demand (mg/l)
250
200
150
100
50
0
No Promulgated U.S. EPA Primary MCL
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Sample Date
GM-01
GM-02
GM-03
GM-04

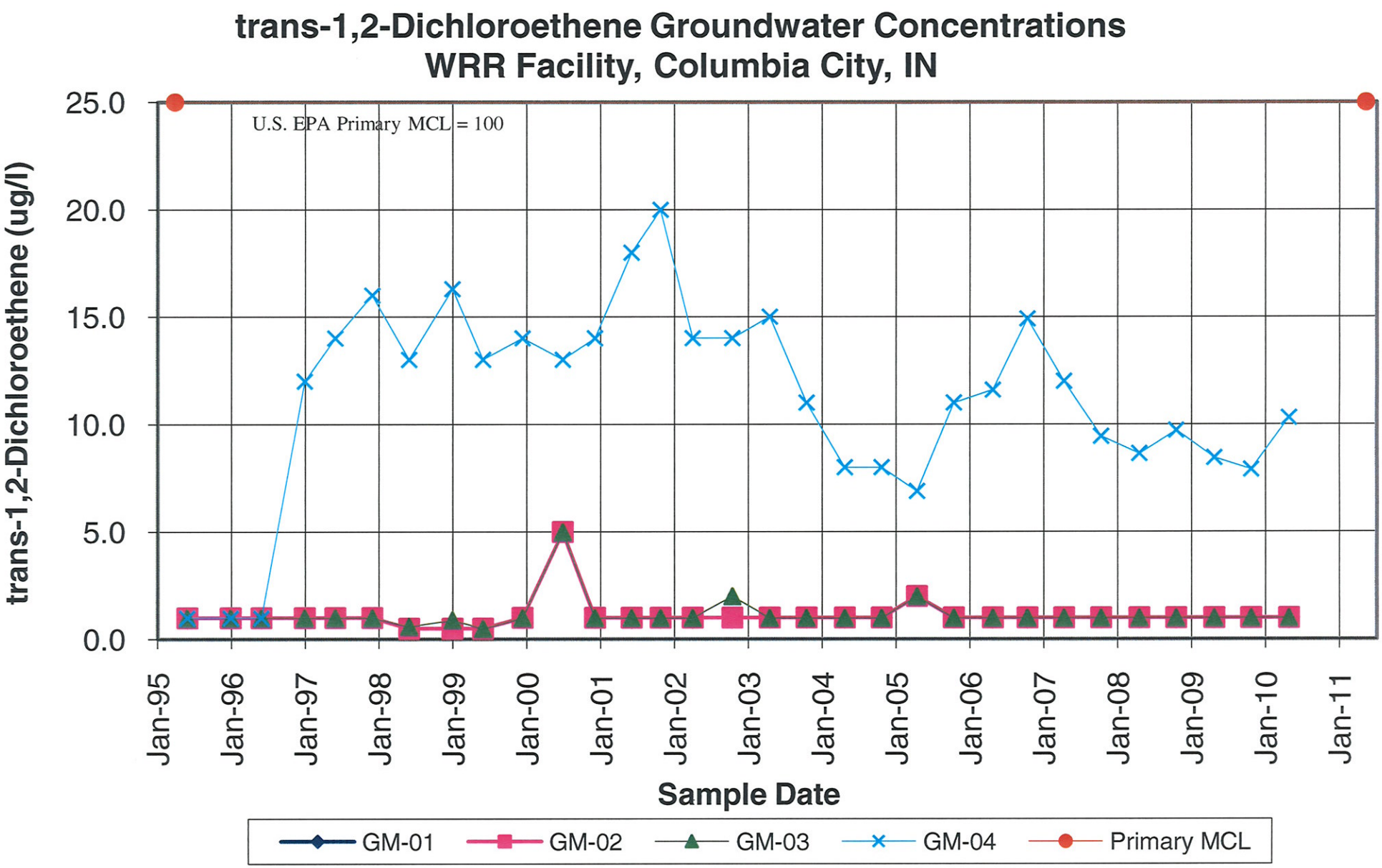

Sodium Groundwater Concentrations
WRR Facility, Columbia City, IN
No Promulgated U.S. EPA Primary MCL
Sodium (mg/l)
70
60
50
40
30
20
10
0
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Sample Date
GM-01
GM-02
GM-03
GM-04

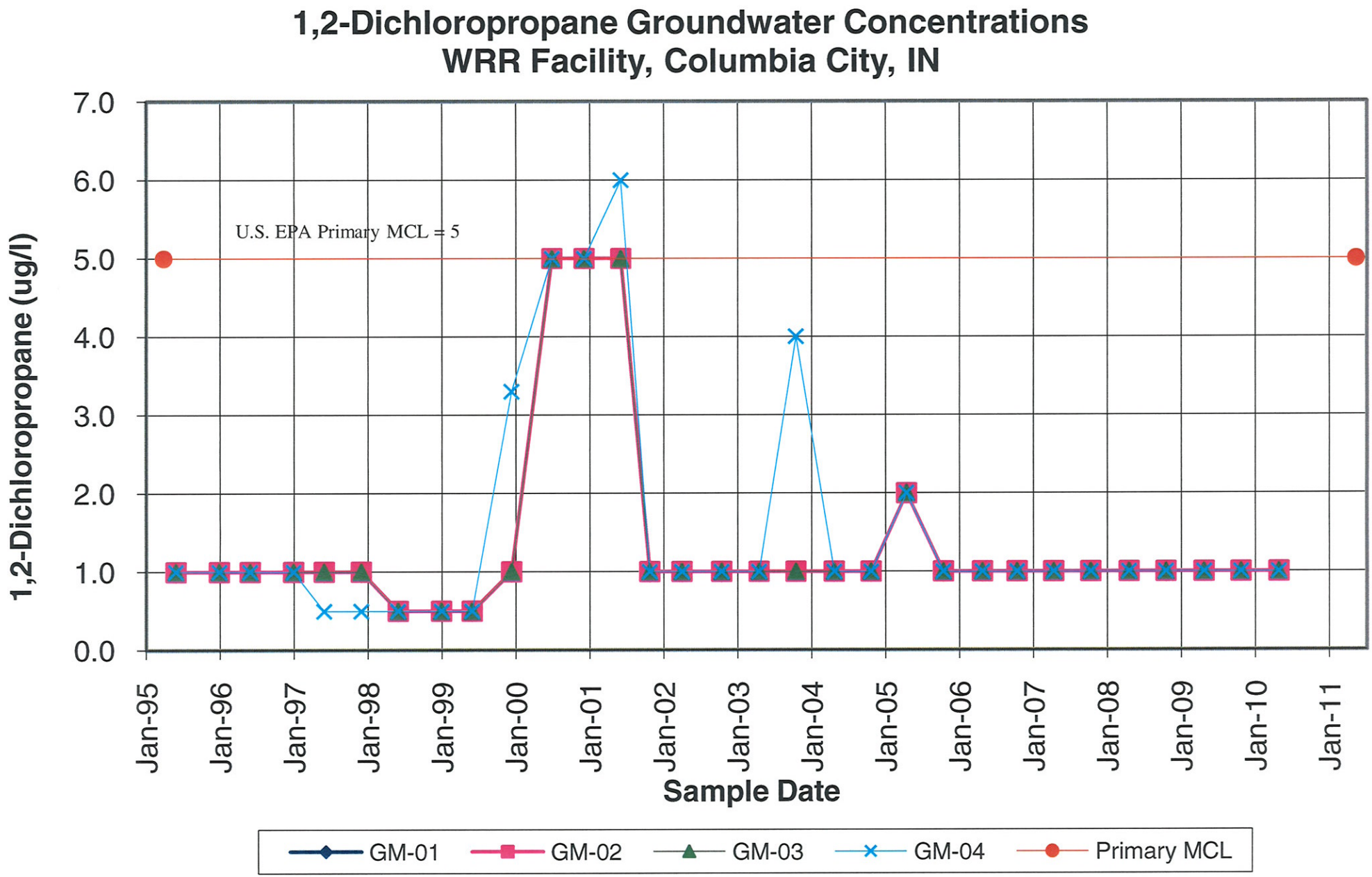

2-Butanone (MEK) Groundwater Concentrations
WRR Facility, Columbia City, IN
2-Butanone (ug/l)
160
140
120
100
80
60
40
20
0
No Promulgated U.S. EPA Primary MCL
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Sample Date
GM-01
GM-02
GM-03
GM-04

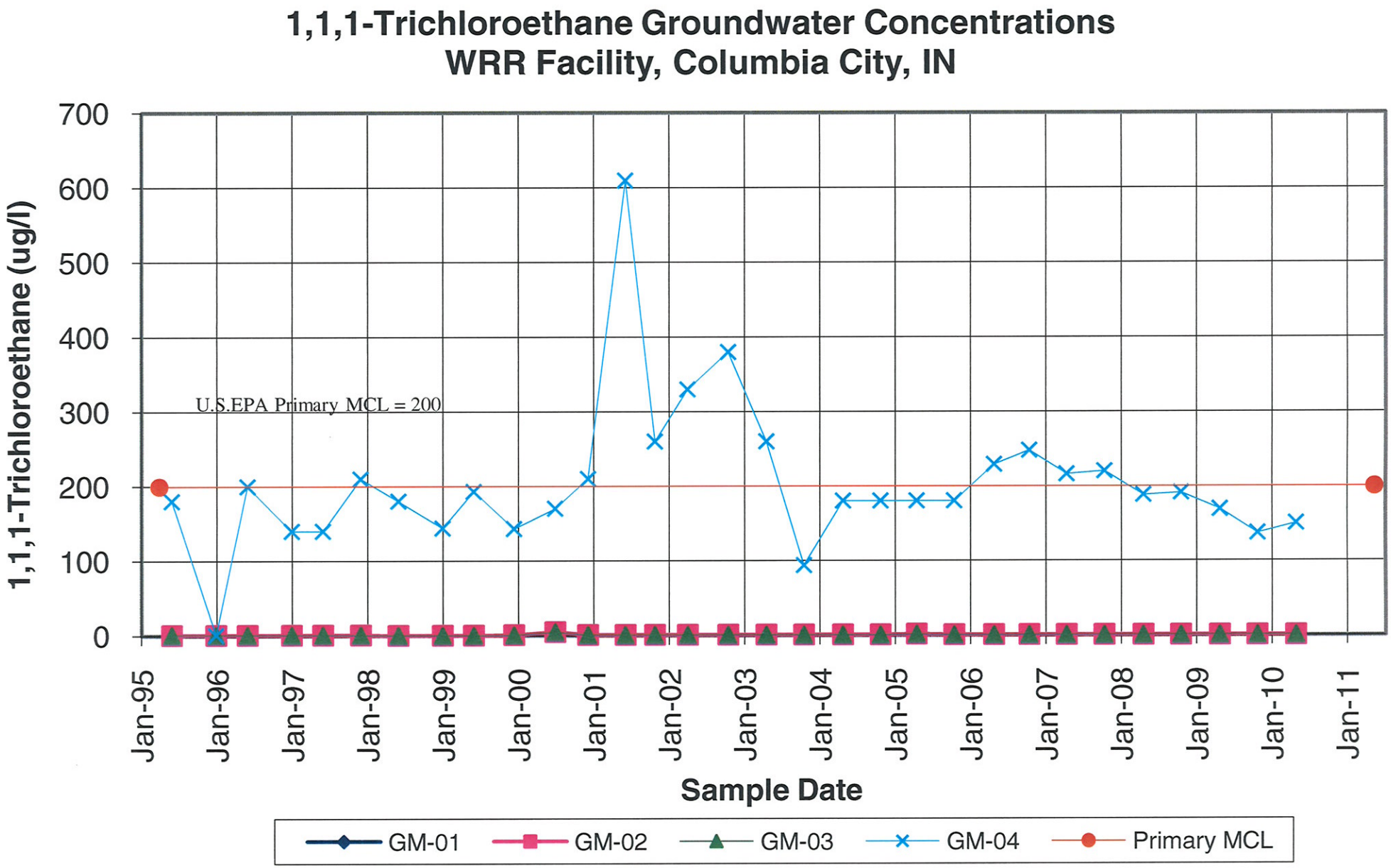

1,1-Dichloroethane Groundwater Concentrations
WRR Facility, Columbia City, IN
No Promulgated U.S. EPA Primary MCL
1,1-Dichloroethane (ug/l)
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Sample Date
GM-01
GM-02
GM-03
GM-04

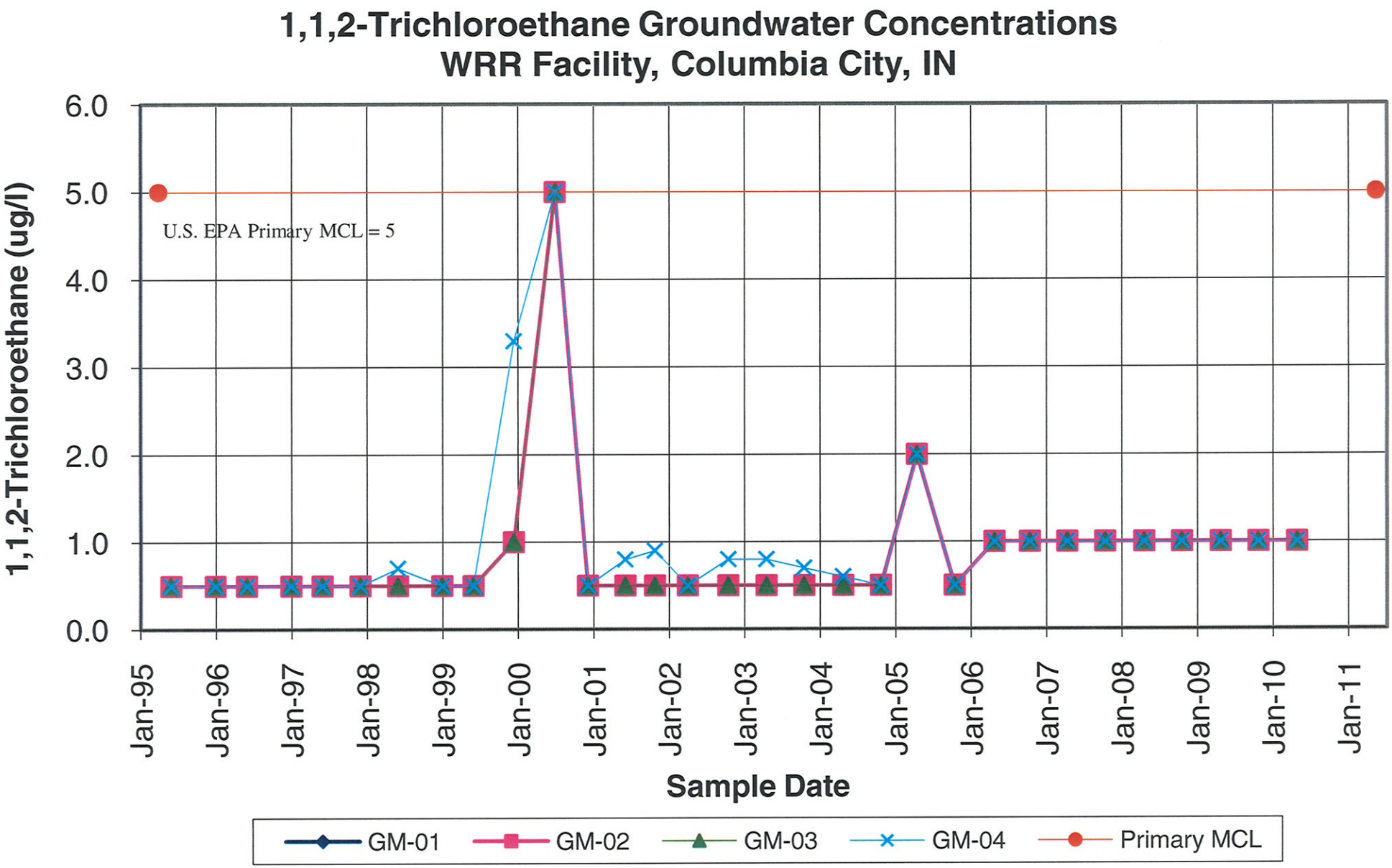

1,1-Dichloroethene Groundwater Concentrations
WRR Facility, Columbia City, IN
U.S. EPA Primary MCL = 7
1,1-Dichloroethene (ug/l)
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Sample Date
GM-01
GM-02
GM-03
GM-04
Primary MCL

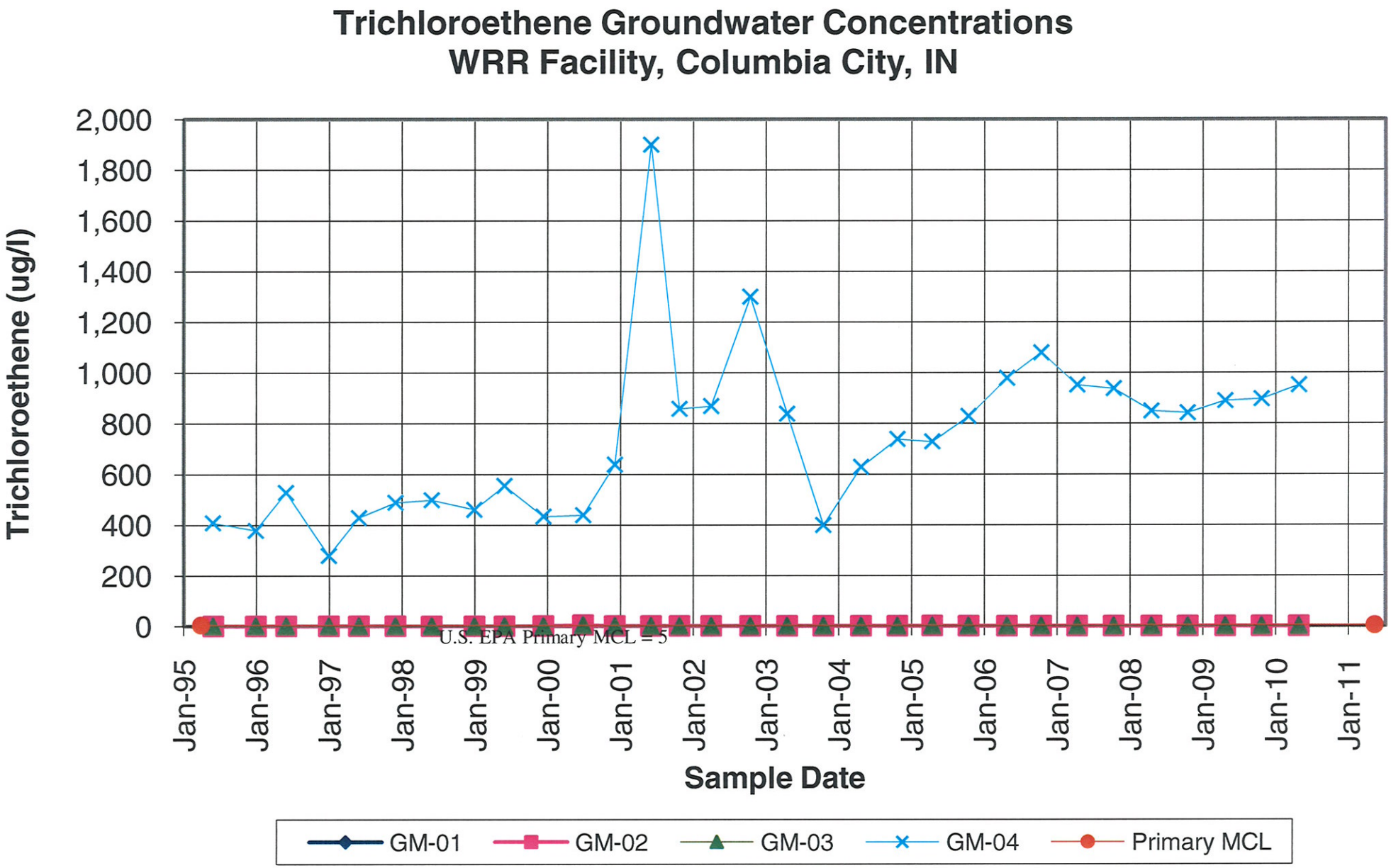

cis-1,2-Dichloroethene Groundwater Concentrations
WRR Facility, Columbia City, IN
cis-1,2-Dichloroethene (ug/l)
600
500
400
300
200
100
0
U.S. EPA Primary MCL = 70
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Sample Date
GM-01
GM-02
GM-03
GM-04
Primary MCL

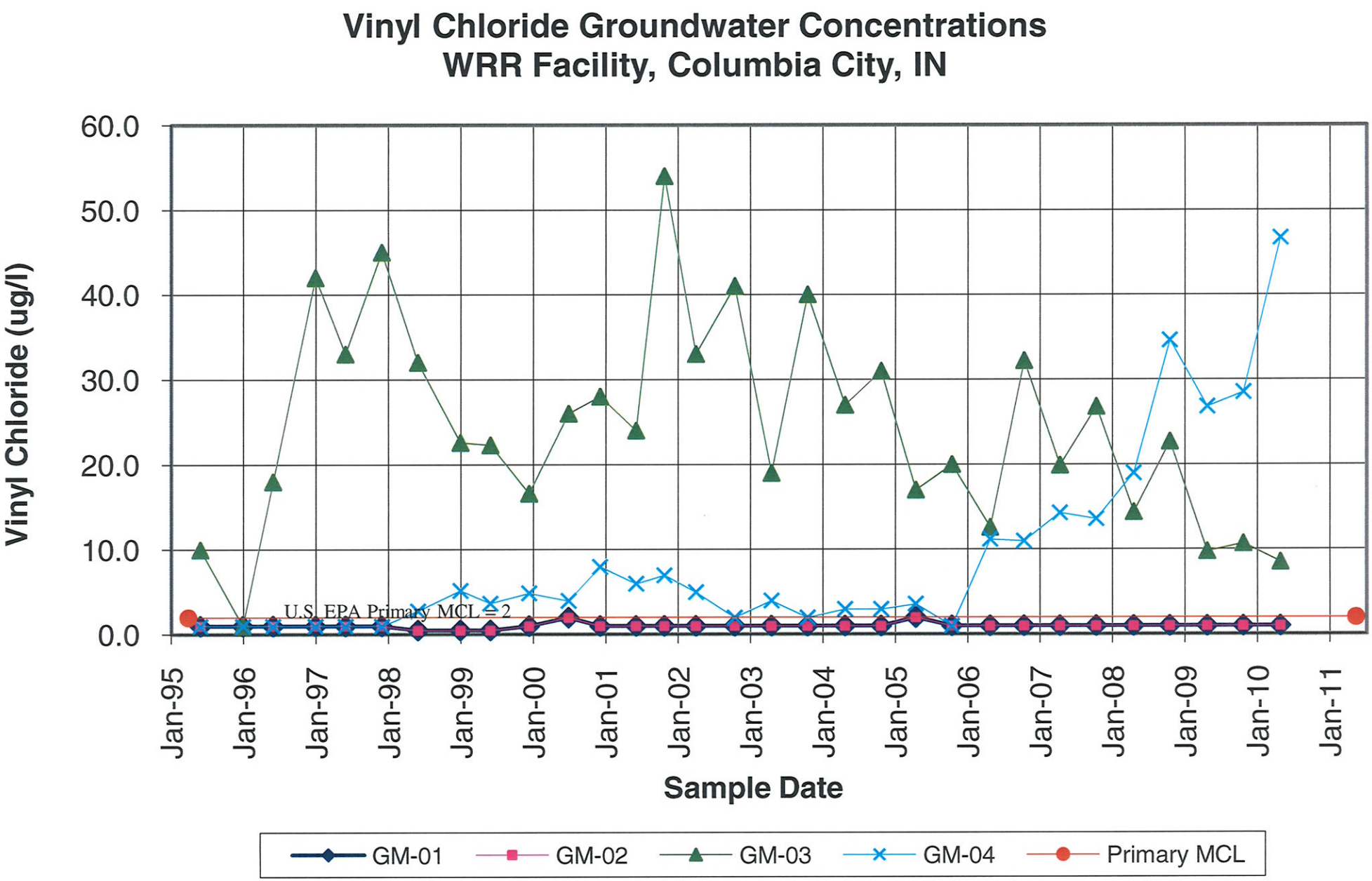

trans-1,2-Dichloroethene Groundwater Concentrations
WRR Facility, Columbia City, IN
U.S. EPA Primary MCL = 100
trans-1,2-Dichloroethene (ug/l)
25.0
20.0
15.0
10.0
5.0
0.0
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Sample Date
GM-01
GM-02
GM-03
GM-04
Primary MCL


1,2-Dichloropropane Groundwater Concentrations
WRR Facility, Columbia City, IN
1,2-Dichloropropane (ug/l)
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
U.S. EPA Primary MCL = 5
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Sample Date
GM-01
GM-02
GM-03
GM-04
Primary MCL


1,1,1-Trichloroethane Groundwater Concentrations
WRR Facility, Columbia City, IN
1,1,1-Trichloroethane (ug/l)
700
600
500
400
300
200
100
0
U.S.EPA Primary MCL = 200
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Sample Date
GM-01
GM-02
GM-03
GM-04
Primary MCL


1,1,2-Trichloroethane Groundwater Concentrations
WRR Facility, Columbia City, IN
1,1,2-Trichloroethane (ug/l)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
U.S. EPA Primary MCL = 5
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Sample Date
GM-01
GM-02
GM-03
GM-04
Primary MCL


Trichloroethene Groundwater Concentrations
WRR Facility, Columbia City, IN
Trichloroethene (ug/l)
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
U.S. EPA Primary MCL = 5
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Sample Date
GM-01
GM-02
GM-03
GM-04
Primary MCL


Vinyl Chloride Groundwater Concentrations
WRR Facility, Columbia City, IN
Vinyl Chloride (ug/l)
60.0
50.0
40.0
30.0
20.0
10.0
0.0
U.S. EPA Primary MCL = 2
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Sample Date
GM-01
GM-02
GM-03
GM-04
Primary MCL

APPENDIX B

DATA VALIDATION REPORT

APPENDIX B

DATA VALIDATION REPORT
SEMI-ANNUAL PROGRESS REPORT 30

January through June 2010
Wayne Reclamation & Recycling

Groundwater, air, and associated quality control (QC) samples were collected from the Wayne Reclamation & Recycling Site in Columbia City, Indiana between January and June 2010. The water samples were analyzed by Pace Analytical Services, Inc. (Pace) of Indianapolis, Indiana for one or more of the following parameters: volatile organic compounds (VOCs) by United States Environmental Protection Agency (U.S. EPA) Method SW-846 8260B; dissolved metals (arsenic, barium, cadmium, chromium, lead, nickel, and zinc) by U.S. EPA Method SW-846 6010B; and total cyanide by U.S. EPA Method 335.3. Additionally, air samples were analyzed for VOCs by Pace of Minneapolis, Minnesota by U.S. EPA Method TO-14.

Laboratory analytical results were evaluated in accordance with the U.S. EPA Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Organic Data Review (June 2008), U.S. EPA CLP NFG for Inorganic Data Review (October 2004), and the laboratory-specific quality control parameters for each analytical methods. The analytical data were reviewed and qualified based on the results of the data evaluation parameters and/or the QC sample results provided by the laboratory.

The following summarizes the review of the analytical data that did not meet the QC criteria per sample delivery group (SDG):

Air Samples

SDG 10121448 The laboratory indicated that the cis-1,2-dicloroethane (DCE) result for sample AIREFF exceeded the calibration range. Therefore, the cis-1,2-DCE result for sample AIREFF is considered estimated (J).

The LCS %Rs for 1,2,4-trichlorbenzene (176%), hexachloro-1,3-butadiene (183%), and methylene chloride (187%) exceeded the quality control criteria. These compounds were not detected in the investigative sample; therefore, qualification was not necessary.

SDG 10122850 No comments.

SDG 10124106 The laboratory indicated that the cis-1,2-DCE result for sample AIREFF exceeded the calibration range. Therefore, the cis-1,2-DCE result for sample AIREFF is considered estimated (J).

The LCS %R for THC as gas (148%) exceeded the quality control criteria (30-170%). This compound was not detected in the investigative samples; therefore, qualification was not necessary.

SDG 10127606 The laboratory indicated that the cis-1,2-DCE results for samples AIREFF and AIREFF-FIELD DUP exceeded the calibration range. Therefore, the cis-1,2-DCE results for samples AIREFF and AIREFF-FIELD DUP are considered estimated (J).

The LCS %R for tetrachloroethene (135%) exceeded the quality control criteria (68-127%). This compound was not detected in the investigative samples; therefore, qualification was not necessary.

SDG 10128882 No comments.

SDG 10132495 The LCS %Rs for 1,2,4-trichlorobenzene (179%) and hexachloro-1,3-butadiene (208%) exceeded the quality control criteria (30-150%). These compounds were not detected in the investigative samples; therefore, qualifiers were not necessary.

Groundwater System Samples

SDG 5034215 The LCS %Rs for dichlorodifluoromethane (12%) and vinyl chloride (52%) were below the quality control criteria (30-170% and 55-141%, respectively). These compounds were not detected in the investigative sample (GWEFF); therefore, the sample results for dichlorodifluoromethane and vinyl chloride may have been biased low and are considered estimated (J).

Hexachloro-1, 3-butadiene, naphthalene, and n-butylbenzene were detected in the method blank associated with sample GWEFF of this SDG. These compounds were not detected in

the investigative sample. Therefore, qualifiers were not necessary.

SDG 5034867 Naphthalene was detected in the method blank associated with this SDG. This compound was not detected in the investigative samples; therefore, qualification was not necessary.

The LCS %R for acrolein (848%) exceeded the quality control criteria (30-170%). This compound was not detected in the investigative samples; therefore, qualification was not necessary.

SDG 5035427 Naphthalene and methylene chloride were detected in the method blank associated this SDG. These compounds were not detected in the investigative sample. Therefore, qualifiers were not necessary.

SDG 5036906 The LCS %R for acrolein (14%) was below the quality control criteria (30-170%). This compound was not detected in the investigative samples; therefore, the sample results for acrolein may have been biased low and are considered estimated (J).

Sample GWINF was used for MS/MSD analyses. The MS %Rs for 1,1,2,2-tetrachloroethane (63%), 1,1,2-trichloroethane (66%), and 1,2,3-trichloropropane (50%) were slightly below the quality control criteria. Because the MSD %Rs were acceptable, qualification was not necessary. In addition, MS %R for trichloroethene (190%) was about the quality control criteria. Because the MSD %R was acceptable, qualification was not necessary. The investigative sample concentrations for cis-1,2-DCE and TCE were approximately or greater than four times the MS/MSD spike amount. Therefore the MS/MSD %Rs for these compounds were not evaluated.

SDG 5037393 The LCS %Rs for o-xylene (128%) and tetrachloroethene (125%) exceeded the quality control criteria (72-127% and 60-119%, respectively). These compounds were not detected in the investigative samples; therefore, qualification was not necessary.

SDG 5038908 Naphthalene was detected in the method blank associated this SDG. This compound was not detected in the investigative sample. Therefore, qualifiers were not necessary.

The LCS %R for acrolein (12%) was below the quality control criteria (30-170%). This compound was not detected in the investigative samples and is not considered a compound of concern for this site. Therefore qualifiers were not necessary.

The MS %R for acrylonitrile (64%) was was below the quality control criteria (66-137%). This compound was not detected in the investigative samples and is not considered a compound of concern for this site. Therefore qualifiers were not necessary.

Groundwater Monitoring Well Samples

SDG 5036899 Sample MW-14S was used for MS/MSD analyses. The MS %Rs for 1,1,2,2-tetrachloroethane (60%), 1,1,2-trichloroethane (65%), 2-hexanone (59%), and acrylonitrile (54%) were slightly below the quality control criteria. Because the MSD %Rs were acceptable, qualification was not necessary. In addition, the MS/MSD RPDs for 1,1-dichloroethene (21%), acrylonitrile (30%), methyl-tert-butyl ether (23%), methylene chloride (40%), and trans-1,2-dichloroethene exceeded the quality control criterion (20%). The results for these compounds are considered estimated (J).

The LCS %R for acrolein (16%) was below the quality control criteria (30-170%). This compound was not detected in the investigative samples; therefore, the sample results for acrolein may have been biased low and are considered estimated (J). The LCS %R for trans-1,2-dichloroethene (132%) exceeded the quality control criteria (71-126%). This compound was detected in samples MW-9S and MW-10S; therefore the results for this compound are considered estimated (J). This compound was not detected in the other investigative samples; therefore, qualification was not necessary.

Based on the results of this data validation, the data are considered useable and complete as qualified.

KEG\BRT
\\Usdet1s02\J:\01_INDUSTRIAL-OTHER\3868-Wayne RR\6-Reports\SAPR 30\04 - Appendices\Appendix B - data valid rpt- Wayne Rec SAPR 30.doc

APPENDIX C

SUMMARY OF MAJOR FIELD ACTIVITIES
JANUARY THROUGH JUNE 2010

APPENDIX C

SUMMARY OF MAJOR FIELD ACTIVITIES
JANUARY THROUGH JUNE 2010

Wayne Reclamation & Recycling

Date	Description of Field Activities and Events as Provided by InSite
January 2010	• Replacement of a defective connector associated with the air stripper control pitot. • Clean all recovery well flow meters. • Remove the pump from RW-10 and inspect the motor. • Switch the pump at RW-7. • Pull drop at RW-10 and build new Franklin connector. • Check the transducer at FT-3 and replace connectors. • Switch the pump at RW-8. • Investigation of a low flow and repair of a leak near RW-6. • Switch the pumps at RW-3, RW-4, RW-5, and RW-9. • Inspect RW-3; find and repair a pitless leak. • Manually pump down the knockout tank.
February 2010	• Adjust air stripper control parameters. • Mark trees for removal. • Pump down the blind sump.
March 2010	• Service blower B-1 and B-2; switch blowers.
April 2010	• Test actuator, positioned, and I/P transducer for air stripper flow. • Calibrate the transducer. • Find improved setup for valve positioning. • Adjust transducer zero point for control of air stripper flow. • Adjust stripper PID control parameters.
May 2010	• Routine site maintenance and landscaping (mowing). • Mix batch of anti-scale solution. • Check controls for RW-10; adjust control elevations.
June 2010	• Routine site maintenance and landscaping (mowing). • Plant down due to storm damage; diagnose and sketch temporary repair solutions; found lightning-struck tree near southeast area. • Install temporary fix for data loss; start plant and adjust for normal operation. • Test for fault in data line b; find leakage to ground from clock line; make temporary repair; reduced SVE flow from AST area due to excessive water recovery. • Mix batch of anti-scale solution; switch protector for data line b; found fallen tree in southeast area. • Adjust phase angle control for RW-4 & 5.

APPENDIX D

HISTORICAL MONITORING DATA

Table D-1
Summary of Summa Canister Sampling for Soil Vapor Extraction Lines
Wayne Reclamation & Recycling

	SOUTHEAST AREA													
	BRANCHES A - F													
	AS-ON	AS-ON	AS-ON	AS-ON	AS-ON	AS-OFF	AS-ON	AS-OFF	AS-ON	AS-OFF	AS-ON	AS-OFF	AS-ON	AS-OFF
CONSTITUENT (ppb[v/v])	**1/9/96**	**2/15/96**	**2/16/96**	**2/18/96**	**11/25/96**	**11/27/96**	**9/3/97**	**9/5/97**	**11/18/97**	**11/21/97**	**4/21/98 ***	**4/28/98**	**10/14/98**	**10/16/98**
1,1-Dichloroethane	**230**	**230**	**300**	**180**	**120**	**81**	**88**	**82**	**98**	**92**	**20**	**19**	**70**	**73**
cis-1,2-Dichloroethene	**9,600**	**6,800**	**6,600**	**6,400**	**5,300**	**3,700**	**2,900**	**3,000**	**4,400**	**4,300**	**830**	**1,000**	**3,300**	**3,500**
trans-1,2-Dichloroethene	**850**	**460**	**540**	**480**	**490**	**340**	**370**	**380**	**460**	**460**	**71**	**74**	**280**	**360**
4-Ethyltoluene	<84	<72	<72	<72	<36	<34	<17	<34	<36	<30	<12	<12	<25	<25
Tetrachloroethene	**670**	**470**	**470**	**470**	**450**	**370**	**370**	**370**	**240**	**220**	**56**	**100**	**450**	**270**
1,1,1-Trichloroethane	**1,300**	**810**	**770**	**700**	**520**	**340**	**280**	**290**	**270**	**290**	**47**	**51**	**280**	**190**
Trichloroethene	**9,100**	**8,600**	**7,200**	**7,100**	**4,000**	**3,000**	**2,800**	**2,800**	**3,800**	**3,500**	**330**	**540**	**2,500**	**2,900**
1,2,4-Trimethylbenzene	<84	<72	<72	<72	<36	<34	<17	<34	<36	<30	**13**	<12	<25	<25
1,3,5-Trimethylbenzene	<84	<72	<72	<72	<36	<34	<17	<34	<36	<30	<12	<12	<25	<25
Vinyl Chloride	<84	<72	**240**	**230**	**61**	<34	**130**	**200**	**89**	**56**	**85**	<12	<25	<25
Xylenes, Total	<84	<72	<72	<72	<36	<34	<17	<34	<36	<30	**23**	**14**	<25	<25
Soil Vapor Extraction Wells:	1 - 40D													

Notes:

Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

AS = Air sparging system (on or off).

* As of May 1, 1998, began to cycle operation of soil vapor extraction branches.

Bold = Analyte detected greater than the laboratory reporting limit.

< = Not detected greater than the reporting limit provided.

The soil vapor extraction (SVE) and air sparge (AS) systems were temporarily shut down on November 13, 2005 for assessment of the vadose zone and were restarted in April 2006.

Table D-1
Summary of Summa Canister Sampling for Soil Vapor Extraction Lines
Wayne Reclamation & Recycling

	SOUTHEAST AREA															
	BRANCHES A - F															
	AS-ON	AS-OFF	AS-ON	AS-OFF	AS-ON	AS-OFF	AS-ON	AS-OFF	AS-ON	AS-OFF	AS-ON	AS-OFF	AS-ON	AS-OFF	AS-ON	AS-OFF
CONSTITUENT (ppb[v/v])	**4/26/99**	**4/13/99**	**12/14/99**	**12/21/99**	**4/18/00**	**4/29/00**	**10/6/00**	**10/10/00**	**4/27/01**	**4/23/01**	**9/29/01 ***	**10/31/01**	**4/23/02**	**4/26/02**	**10/23/02**	**10/28/02**
1,1-Dichloroethane	**14**	**5**	**47**	**38**	**17**	**29**	**49**	**32**	<6.9	<140	<140	<130	**14**	**10**	<140	<130
cis-1,2-Dichloroethene	**410**	**210**	**1,500**	**1,300**	**580**	**1,400**	**2,200**	**1,300**	**270**	**150**	**680**	**1,500**	**510**	**370**	**1,300**	**790**
trans-1,2-Dichloroethene	**40**	**22**	**180**	**160**	**59**	**130**	**160**	**130**	NA	NA	NA	NA	NA	NA	NA	NA
4-Ethyltoluene	**7**	<2	<9.7	<7.8	<6.7	<13	<18	<8.2	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	**53**	**5**	**54**	**58**	**52**	**79**	**52**	**95**	**20**	<140	<140	<130	**47**	**42**	<140	<130
1,1,1-Trichloroethane	**90**	**6**	**100**	**87**	**56**	**74**	**93**	**75**	**29**	<140	<140	<130	**27**	**19**	<140	<130
Trichloroethene	**250**	**94**	**650**	**540**	**400**	**710**	**920**	**750**	**150**	**140**	**280**	**410**	**300**	**330**	**720**	**430**
1,2,4-Trimethylbenzene	**14**	**2**	<9.7	<7.8	<6.7	<13	<18	<8.2	<6.9	<140	<140	<130	<1.3	<0.64	<140	<130
1,3,5-Trimethylbenzene	<2	<2	<9.7	<7.8	<6.7	<13	<18	<8.2	<6.9	<140	<140	<130	<1.3	<0.64	<140	<130
Vinyl Chloride	**12**	**15**	**180**	**29**	**12**	<13	**130**	<8.2	**60**	<140	<140	<260	**61**	**18**	<140	<130
Xylenes, Total	**29**	**5**	<9.7	<7.8	<6.7	<13	<18	<8.2	<5.7	<140	<280	<260	<2.2	<1.1	<280	<270
Soil Vapor Extraction Wells:	1 - 40D															

Notes: * As of September 15, 2001, began cycling of two soil vapor extraction branches with weekly rotation of branches.

Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

AS = Air sparging system (on or off).

Bold = Analyte detected greater than the laboratory reporting limit.

< = Not detected greater than the reporting limit provided.

NA = Not analyzed.

Table D-1
Summary of Summa Canister Sampling for Soil Vapor Extraction Lines
Wayne Reclamation & Recycling

	SOUTHEAST AREA																	
	BRANCHES A - F																	
	AS-ON	AS-OFF	AS-ON	AS-OFF	AS-ON	AS-OFF	AS-ON	AS-OFF	AS-ON	AS-OFF	AS-ON	AS-OFF	AS-ON	AS-OFF	AS-ON	AS-OFF	AS-ON	AS-OFF
CONSTITUENT (ppb[v/v])	**4/15/03**	**4/21/03**	**10/15/03**	**10/18/03**	**4/19/04**	**4/23/04**	**10/14/04**	**10/19/04**	**4/19/05**	**4/25/05**	**10/12/05**	**10/12/05**	**4/8/06**	**4/8/06**	**5/21/06**	**5/28/06**	**10/24/06**	**10/24/06**
1,1-Dichloroethane	<130	<130	<150	<150	<13	<140	<140	<150	**6.7**	< 12.9	< 130	< 130	<13.4	<14.3	<14.3	<14.8	**22**	<13.4
cis-1,2-Dichloroethene	**190**	**470**	**390**	**340**	**790**	**160**	**330 (UB)**	**330 (UB)**	**742**	**742**	**430**	**400**	**449**	**458**	**567**	**392**	**811**	**570**
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	< 0.7	< 13.7	< 130	< 130	**64**	**75**	**86**	**50**	**122**	**92**
4-Ethyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	<130	<130	<150	<150	**29**	<140	<140	<150	**19**	**40**	< 130	< 130	**26**	**22**	**38**	**34**	**36**	**34**
1,1,1-Trichloroethane	<130	<130	<150	<150	**21**	<140	<140	<150	**19**	**31**	< 130	< 130	**22**	**23**	**40**	**33**	**64**	**37**
Trichloroethene	<130	**270**	**260**	**240**	**390**	<140	**180 (UB)**	**180 (UB)**	**407**	**323**	**240**	**230**	**322**	**309**	**378**	**279**	**434**	**376**
1,2,4-Trimethylbenzene	<130	<130	<150	<150	<13	<140	<140	<150	**0.86**	< 12.9	< 130	< 130	<13.4	<14.3	<14.3	<14.8	<13.8	<13.4
1,3,5-Trimethylbenzene	<130	<130	<150	<150	<13	<140	<140	<150	< 0.66	< 12.9	< 130	< 130	<13.4	<14.3	<14.3	<14.8	<13.8	<13.4
Vinyl Chloride	<130	<130	<150	<150	**30**	<140	<140	<150	< 0.69	< 13.4	< 130	< 130	**31.2**	<14.3	**19.8**	<14.8	<13.8	<13.4
Xylenes, Total	<270	<270	<460	<450	**30**	<140	<140	<150	**1.8**	< 21.4	< 270	< 270	<40.2	<42.9	<42.9	<44.4	<41.4	<40.2
Soil Vapor Extraction Wells:	1 - 40D																	

Notes: Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

AS = Air sparging (on or off).

Bold = Analyte detected greater than the laboratory reporting limit.

< = Not detected greater than the reporting limit provided.

NA = Not analyzed.

Southeast

Table D-1
Summary of Summa Canister Sampling for Soil Vapor Extraction Lines
Wayne Reclamation & Recycling

	ABOVEGROUND STORAGE TANK AREA												
	BRANCHES G and H [1]												
CONSTITUENT (ppb[v/v])	**1/11/96**	**11/25/96**	**9/3/97**	**11/18/97**	**4/21/98**	**10/16/98**	**4/21/99**	**11/22/99**	**4/18/00**	**10/2/00**	**4/23/01**	**11/2/01**	**4/23/02**
1,1-Dichloroethane	**39**	**270**	**11**	**6**	<2	<2.0	<2.0	<2.0	**9.1**	**10**	**1.3**	**4.6**	**0.77**
cis-1,2-Dichloroethene	**1,800**	**660**	**820**	**310**	**110**	**50**	**21**	**24**	**330**	**300**	**21**	**130**	**27**
trans-1,2-Dichloroethene	**120**	**63**	**59**	**24**	**4.8**	**2.2**	<2.0	<2.0	**28**	**27**	NA	<0.57	NA
4-Ethyltoluene	**190**	<22	**10**	**3**	**16**	<2.0	**4**	**2.1**	<7.3	<6.1	NA	NA	NA
Tetrachloroethene	**1,600**	<22	**460**	**67**	**21**	**6**	**2.8**	<2.0	**58**	**75**	**15**	**71**	**6.6**
1,1,1-Trichloroethane	**790**	**2,700**	**180**	**65**	**3.4**	**2**	<2.0	<2.0	**55**	**61**	**9.9**	**33**	**3.6**
Trichloroethene	**1,700**	**140**	**1,500**	**420**	**57**	**48**	**8.1**	**9**	**590**	**710**	**57**	**150**	**22**
1,2,4-Trimethylbenzene	**230**	<22	**12**	**4**	**22**	<2.0	**7.5**	**2.8**	<7.3	<6.1	<0.71	<0.69	<0.69
1,3,5-Trimethylbenzene	**120**	<22	**20**	**4**	**6.3**	<2.0	**2.2**	<2.0	<7.3	<6.1	<0.71	<0.69	<0.69
Vinyl Chloride	**130**	<22	<8.4	**22**	**7**	<2.0	**2.3**	**3.6**	<7.3	<6.1	<0.74	**2.5**	**0.92**
Xylenes, Total	**55**	<22	**25**	**46**	**57**	<2.0	**18**	**2.1**	<7.3	**31**	**3.49**	**41**	**2.79**
Soil Vapor Extraction Wells:	41 - 55												

Notes:

Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

[1] Branch H operations suspended as of the beginning of October 2002.

Bold = Analyte detected greater than the laboratory reporting limit.

< = Not detected greater than the reporting limit provided.

Table D-1
Summary of Summa Canister Sampling for Soil Vapor Extraction Lines
Wayne Reclamation & Recycling

	ABOVEGROUND STORAGE TANK AREA																	
	BRANCH G (EAST BRANCH)																	
CONSTITUENT (ppb[v/v])	**10/23/02**	**12/18/02 ***	**4/17/03**	**10/15/03**	**4/19/04**	**10/19/04**	**4/19/05**	**10/12/05**	**4/7/06**	**5/30/06**	**10/20/06**	**4/23/07**	**10/18/07**	**4/14/08**	**10/17/08**	**4/20/09**	**10/15/09**	**4/21/10**
1,1-Dichloroethane	<140	<140	<130	<150	<13	**5.7**	< 13.2	< 140	<13.8	<14.3	<13.8	<3.4	<14.3	<13.4	<13.4	<0.67	**1.9**	<12.5
cis-1,2-Dichloroethene	<140	**580**	**190**	<150	**160**	**170 (UB)**	**65**	**290**	**805**	**132**	**222**	**11**	**33**	<13.4	**362**	**13**	**37**	**23**
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	< 14.1	< 140	<13.8	<14.3	**15**	<3.5	<14.3	<13.4	**50**	<0.67	**2.1**	<12.5
4-Ethyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<12.5
Tetrachloroethene	<140	<140	<130	<150	**23**	**27**	**22**	< 140	**29**	**28**	**51**	**7.5**	<14.3	<13.4	**32**	**28**	**13**	<12.5
1,1,1-Trichloroethane	<140	<140	<130	<150	<12	**17**	**74**	< 140	<13.8	<14.3	**17**	<3.4	<14.3	<13.4	**18**	<0.67	**2.9**	<12.5
Trichloroethene	**180**	**440**	**280**	**260**	**360**	**350 (UB)**	**105**	**260**	**197**	**183**	**380**	**28**	**52**	<13.4	**559**	**9.5**	**98.9**	**40.3**
1,2,4-Trimethylbenzene	<140	<140	<130	<150	<13	**4.0**	< 13.2	< 140	<13.8	<14.3	<13.8	<3.4	<14.3	<13.4	<13.4	**2.4**	<0.67	<12.5
1,3,5-Trimethylbenzene	<140	<140	<130	<150	<13	**1.2**	< 13.2	< 140	<13.8	<14.3	<13.8	<3.4	<14.3	<13.4	<13.4	**1.6**	<0.67	<12.5
Vinyl Chloride	<140	<140	<130	<150	<14	**18.4 (UB)**	< 13.8	< 140	<13.8	<14.3	<13.8	<3.4	<14.3	<13.4	<13.4	<0.67	<0.67	<12.5
Xylenes, Total	<290	<290	<270	<450	**47**	**9.3**	< 22.1	< 290	<13.8	<14.3	<13.8	<3.4	<42.9	<40.2	<40.2	**1.0**	<2.0	<32.5
Soil Vapor Extraction Wells:	41 - 43, 50, and 53 - 58																	

Notes: Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

* Additional sampling following the completion and connection of new Soil Vapor Extraction Wells 56, 57, and 58.

Bold = Analyte detected greater than the laboratory reporting limit.

(1) Branch H operations suspended as of the beginning of October 2002.

< = Not detected greater than the reporting limit provided.

NA = Not analyzed.

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

	MONITORING WELL MW-1D (Southeast Area)																PRG
CONSTITUENT **Date Sampled**	**8/1988**	**6/7/96**	**11/6/96**	**6/12/97**	**10/14/98**	**10/13/99**	**10/2/00**	**10/31/01**	**10/25/02**	**10/15/03**	**10/20/04**	**10/12/05**	**10/18/06**	**10/17/07**	**10/17/08**	**10/13/09**	**(µg/L)**
VOCs (µg/L)																	
Acetone	ND	ND	NA	NA	NA	ND	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)	ND	ND	NA	NA	NA	NA	NA	NA	NA	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene	ND	ND	NA	NA	NA	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	ND	ND	NA	NA	NA	ND	ND	ND	ND	<1.0	<20.0	< 20	< 20	< 20	< 20	< 20	**768**
Chloroethane	ND	ND	NA	ND	ND	ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 2	<2	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	**5**	*< 1*	*< 1*	**0.274**
Dibromomethane	ND	ND	NA	NA	NA	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**973**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**70**
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**100**
1,2-Dichloroethene, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)	ND	ND	NA	NA	NA	ND	ND	ND	ND	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**2.54**
1,2,4-Trimethylbenzene	ND	ND	NA	NA	NA	ND	ND	ND	ND	<1.0	NA	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	<1.0	**0.0283**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 2	**828**
TOTAL VOCs	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**	ND	ND	--
Metals (mg/L)																	
Arsenic, Dissolved	**0.0059**	**0.005**	ND	ND	ND	ND	ND	ND	ND	<0.100	<0.0100	< 0.01	< 0.01	< 0.1	< 0.1		--
Barium, Dissolved	**0.132**	**0.13**	**0.13**	**0.12**	**0.16**	**0.68**	**0.14**	**0.18**	**0.226**	**0.147**	**0.140**	**0.175**	**0.170**	**0.160**	**0.230**	<0.10	--
Cadmium, Dissolved	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.030	<0.00500	< 0.001	< 0.001	< 0.03	< 0.03	**0.14**	--
Chromium, Dissolved total	ND	ND	ND	ND	**0.013**	ND	ND	ND	ND	<0.040	**0.0207**	< 0.01	< 0.01	< 0.04	< 0.04	< 0.03	--
Cyanide, Total	**0.009**	ND	ND	ND	ND	ND	ND	ND	ND	<0.005	<0.00500	< 0.005	< 0.005	< 0.005	< 0.005	< 0.04	--
Lead, Dissolved	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.080	<0.00500	< 0.005	< 0.005	< 0.08	< 0.08	<0.005	--
Nickel, Dissolved	ND	ND	ND	**0.051**	ND	ND	ND	ND	**0.012**	**0.013**	**0.0117**	< 0.05	< 0.05	**0.16**	**0.1**	< 0.08	--
Zinc, Dissolved	**0.013**	**0.06**	ND	**0.025**	**0.031**	**0.13**	ND	**0.068**	**0.072**	**0.220**	<0.0200	**0.0358**	<0.020	**0.052**	<0.050	**0.013**	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total.
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).
October 2002 data validated to Level IV; no flags were required for the data in this table collected on that date.
2003 and subsequent data were validated to Level II

-- = No PRG assigned.
< = Not detected greater than the reporting limit provided.
Bold = Analyte detected greater than the laboratory reporting limit.
Italics = Reporting limit greater than the corresponding PRG.
ND = Not detected greater than the method detection limit.
NA = Not analyzed.

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

	MONITORING WELL MW-3S (Southeast Area)											PRG
CONSTITUENT **Date Sampled**	**3/1/88**	**8/1/88**	**11/29/95**	**8/27/96**	**11/6/96**	**6/13/97**	**10/14/98**	**10/13/99**	**10/2/00**	**10/31/01**	**10/15/03**	**(µg/L)**
VOCs (µg/L)												
Acetone	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	<20.0	**3,650**
Benzene	ND	1.1	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	--
2-Butanone (MEK)	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	<12.5	--
n-Butylbenzene	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	<1.0	--
Carbon Disulfide	ND	**2.3**	NA	NA	NA	NA	NA	ND	ND	ND	<1.0	**768**
Chloroethane	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	<5.0	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	**0.274**
Dibromomethane	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	<1.0	--
1,1-Dichloroethane	ND	**23**	ND	ND	**1.5**	ND	ND	ND	ND	ND	<1.0	**973**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	--
1,1-Dichloroethene	ND	**16**	ND	ND	**1.9**	ND	ND	ND	ND	ND	*<1.0*	**0.0167**
cis-1,2-Dichloroethene	NA	NA	NA	**3,500**	**2,600**	**1,200**	**1,100**	**1,400**	**840**	**733**	**269**	**70**
trans-1,2-Dichloroethene	NA	NA	NA	**110**	**92**	**45**	**54**	**33**	**38**	**43**	**22**	**100**
1,2-Dichloroethene, Total	**24,000**	**6,900**	**2,200**	**3,610**	**2,692**	**1,245**	**1,154**	**1,433**	**878**	**776**	**291**	(170)
1,2-Dichloropropane	ND	**8.4**	ND	ND	**3.7**	ND	ND	ND	ND	**2**	<1.0	**1.25**
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**700**
4-Methyl-2-pentanone (MIBK)	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	<12.5	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**1.43**
Toluene	ND	**3.4**	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**1,000**
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**200**
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	**0.314**
Trichloroethene	ND	**1.1**	ND	ND	ND	ND	ND	ND	ND	**5**	**2**	**2.54**
1,2,4-Trimethylbenzene	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	<1.0	--
Vinyl Chloride	**1,300**	**430**	**380**	**400**	**260**	**90**	**120**	**310**	**67**	**3**	**2**	**0.0283**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**828**
TOTAL VOCs	**25,300.0**	**7,385.3**	**2,580**	**4,010**	**2,959.1**	**1,335**	**1,274**	**1,743**	**945**	**786**	**295**	--
Metals (mg/L)												
Arsenic, Dissolved	**0.015**	**0.0234**	**0.005**	ND	ND	ND	ND	**0.011**	ND	ND	<0.100	--
Barium, Dissolved	**0.306**	**0.32**	**0.08**	**0.04**	ND	ND	**0.048**	**0.28**	**0.032**	**0.041**	<0.020	--
Cadmium, Dissolved	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.030	--
Chromium, Dissolved total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.040	--
Cyanide, Total	**0.015**	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.005	--
Lead, Dissolved	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.080	--
Nickel, Dissolved	ND	**0.0151**	ND	ND	ND	ND	ND	ND	**0.013**	ND	**0.020**	--
Zinc, Dissolved	ND	**0.0126**	ND	ND	ND	ND	ND	**0.27**	ND	ND	<0.050	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total.
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).
2003 and subsequent data were validated to Level II
October 2002 and October 2004 - dry conditions at the site; inadequate groundwater volume.
-- = No PRG assigned.

< = Not detected greater than the reporting limit provided.
Bold = Analyte detected greater than the laboratory reporting limit.
Italics = Reporting limit greater than the corresponding PRG.
NA = Not analyzed.
ND = Not detected greater than the method detection limit.
Shaded = Analyte detected greater than the corresponding PRG.

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

	MONITORING WELL MW-4S (Recovery Well RW-4 Area)																															PRG
CONSTITUENT Date Sampled	**8/1/88**	**7/23/92**	**11/28/95**	**8/27/96**	**6/12/97**	**11/18/97**	**4/21/98**	**10/15/98**	**4/12/99**	**10/13/99**	**5/4/00**	**10/2/00**	**4/19/01**	**10/31/01**	**4/23/02**	**10/23/02**	**4/16/03**	**10/15/03**	**4/20/04**	**10/19/04**	**4/19/05**	**10/13/05**	**4/26/06**	**10/18/06**	**4/17/07**	**10/17/07**	**4/14/08**	**10/16/08**	**4/20/09**	**10/13/09**	**4/20/10**	**(µg/L)**
VOCs (µg/L)																																
Acetone	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<20.0	<20.0	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	NA	<2.0	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<12.5	<12.5	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	<1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**768**
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<5.0	<2.0 (J)	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	<2	<2	--
Chloroform	**0.7**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**973**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene	ND	ND	ND	**4.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**68**	<1.0	< 1	**1**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**70**
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**100**
1,2-Dichloroethene, Total	ND	ND	ND	**4.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**68**	<1.0	< 1	**1**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<12.5	<12.5	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene	ND	ND	ND	**1.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	ND	ND	ND	**11**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**73**	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.54**
1,2,4-Trimethylbenzene	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	NA	NA	< 5	< 5	< 5	< 5	NA	NA	NA	< 5	< 5	< 5	< 5	--
Vinyl Chloride	**2**	**1**	ND	ND	ND	ND	**12**	**15**	**17**	**29**	**33**	**23**	**13**	**7**	**6**	**15**	**18**	**25**	**26**	**12**	**8.8**	**7.2**	**8.4**	**5.0**	**5.2**	*< 1*	**3.6**	**3.8**	**7.2**	**2.3**	*< 1*	**0.0283**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 2	**828**
TOTAL VOCs	**2.7**	**1**	ND	**16.6**	ND	ND	**12**	**15**	**17**	**29**	**33**	**23**	**13**	**7**	**6**	**15**	**18**	**25**	**167**	**12**	**8.8**	**8.2**	**8.4**	**5.0**	**5.2**	**0**	**3.6**	**3.8**	**7.2**	**2.3**	**0**	--
Metals (mg/L)																																
Arsenic, Dissolved	NA	ND	**0.006**	ND	ND	ND	ND	ND	ND	**0.0082**	ND	**0.0081**	ND	ND	ND	ND	<0.10	<0.100	**0.0201**	**0.0126**	**0.0173**	**0.0173**	<0.100	**0.0105**	<0.100	<0.100	<0.100	<0.100	<0.100	< 0.1	< 0.1	--
Barium, Dissolved	NA	**0.159**	**0.13**	**0.11**	**0.67**	**0.28**	**0.48**	**0.3**	**0.49**	**0.58**	**0.79**	**1.1**	**1.1**	**0.26**	**0.26**	**0.35**	**0.219**	**0.230**	**0.228**	**0.194**	**0.194**	**0.207**	**0.140**	**0.131**	**0.170**	**0.140**	**0.160**	**0.160**	**0.092**	**0.12**	**0.12**	--
Cadmium, Dissolved	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.030	<0.030	<0.005	<0.00100	< 0.001	< 0.001	< 0.001	< 0.001	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	--
Chromium, Dissolved total	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.040	<0.040	<0.005	<0.0100	< 0.01	< 0.01	< 0.01	< 0.01	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	--
Cyanide, Total	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.005	**0.0071**	<0.005	<0.00500	< 0.005	< 0.005	< 0.005	< 0.005	**0.0051**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	--
Lead, Dissolved	NA	ND	ND	**0.0032**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.16**	ND	<0.080	<0.080	**0.00597**	**<0.00500**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	--
Nickel, Dissolved	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.011**	ND	ND	ND	<0.010	<0.010	<0.010	<0.0500	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	--
Zinc, Dissolved	NA	**0.035**	**0.02**	ND	**0.036**	ND	ND	**0.023**	**0.025**	ND	ND	ND	**0.022**	ND	ND	**0.056**	<0.050	<0.050	**0.0233**	**0.025**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total.
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).
October 2002 data validated to Level IV; no flags were required for the data in this table collected on that date.
2003 and subsequent data were validated to Level II
(J) = estimated.

-- = No PRG assigned.
< = Not detected greater than the reporting limit provided.
Bold = Analyte detected greater than the laboratory reporting limit.
Italics = Reporting limit greater than the corresponding PRG.
ND = Not detected greater than the method detection limit.
Shaded = Analyte detected greater than the corresponding PRG.
NA = Not analyzed.

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT / Date Sampled	MONITORING WELL MW-7S (Recovery Well RW-4 Area)																		PRG
	3/1/88	8/1/88	11/29/95	8/27/96	11/6/96	6/12/97	10/15/98	10/13/99	10/2/00	10/30/01	10/23/02	10/15/03	10/19/04	10/12/05	10/18/06	10/17/07	10/16/08	10/13/09	(µg/L)
VOCs (µg/L)																			
Acetone	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	<1.0	<20.0	< 20	< 20	< 20	< 20	< 20	**768**
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 2	<2	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	ND	**23**	**7.4**	**10**	**7.4**	**5.1**	ND	ND	ND	**3**	**3**	**5**	**4**	**3**	**3**	< 1	< 1	< 1	**973**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	**2.4**	*< 1*	**0.0167**
cis-1,2-Dichloroethene	NA	NA	**1,100**	**980**	**780**	**640**	**87**	**96**	**120**	**187**	**237**	**344**	**330**	**200**	**280**	**155**	**175**	**150**	**70**
trans-1,2-Dichloroethene	NA	NA	**59**	**74**	**55**	**48**	**23**	**10**	**12**	**21**	**21**	**33**	**29**	**18**	**23**	**17**	**20**	**16**	**100**
1,2-Dichloroethene, Total	**2,600**	**1,900**	**1,159**	**1,054**	**855**	**688**	**110**	**106**	**132**	**208**	**258**	**377**	**359**	**218**	**303**	**172**	**195**	**166**	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	ND	ND	**3**	**92**	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**2.54**
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	NA	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride	ND	**1**	ND	ND	ND	ND	ND	**6**	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	<1.0	**0.0283**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 2	**828**
TOTAL VOCs	**2,600**	**1,924**	**1,170**	**1,156**	**862**	**693**	**110**	**112**	**132**	**211**	**261**	**382**	**363**	**221**	**306**	**172**	**197**	**166**	--
Metals (mg/L)																			
Arsenic, Dissolved	**0.005**	**0.003**	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.100	**0.0118**	< 0.01	< 0.01	< 0.1	< 0.1	< 0.1	--
Barium, Dissolved	**0.286**	**0.191**	**0.17**	**0.12**	**0.16**	**0.16**	**0.2**	**0.77**	**0.22**	**0.17**	**0.202**	**0.135**	**0.125**	**0.174**	**0.149**	**0.14**	**0.084**	**0.089**	--
Cadmium, Dissolved	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.030	<0.00100	< 0.001	< 0.001	< 0.03	< 0.03	< 0.03	--
Chromium, Dissolved total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.040	<0.0100	< 0.01	< 0.01	< 0.04	< 0.04	< 0.04	--
Cyanide, Total	ND	**0.016**	**0.095**	ND	ND	ND	ND	ND	ND	ND	ND	**0.0060**	<0.00500	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	--
Lead, Dissolved	ND	ND	ND	**0.0099**	ND	ND	ND	ND	ND	ND	ND	<0.080	<0.00500	< 0.005	< 0.005	< 0.08	< 0.08	< 0.08	--
Nickel, Dissolved	ND	ND	ND	**0.06**	ND	ND	ND	ND	**0.006**	ND	ND	<0.010	<0.0500	< 0.05	< 0.05	< 0.01	< 0.01	<0.01	--
Zinc, Dissolved	ND	**0.0263**	ND	**0.02**	ND	ND	ND	**0.22**	ND	ND	ND	<0.050	**0.0272**	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total.
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).
October 2002 data validated to Level IV; no flags were required for the data in this table collected on that date.
2003 and subsequent data were validated to Level II
-- = No PRG assigned.

< = Not detected greater than the reporting limit provided.
Bold = Analyte detected greater than the laboratory reporting limit.
Italics = Reporting limit greater than the corresponding PRG.
NA = Not analyzed.
ND = Not detected greater than the method detection limit.
Shaded = Analyte detected greater than the corresponding PRG.

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

	MONITORING WELL MW-9S (Aboveground Storage Tank Area)																																PRG
CONSTITUENT **Date Sampled**	**3/1/88**	**8/1/88**	**7/24/92**	**11/7/95**	**8/27/96**	**6/12/97**	**11/18/97**	**4/21/98**	**10/15/98**	**4/12/99**	**10/20/99**	**5/4/00**	**10/2/00**	**4/19/01**	**10/30/01**	**4/23/02**	**10/23/02**	**4/16/03**	**10/15/03**	**4/20/04**	**10/19/04**	**4/19/05**	**10/13/05**	**4/26/06**	**10/18/06**	**4/17/07**	**10/17/07**	**4/14/08**	**10/14/08**	**4/22/09**	**10/13/09**	**4/20/10**	**(µg/L)**
VOCs (µg/L)																																	
Acetone	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<20.0	<20.0	<20	<20	< 20	< 100	< 100	< 10000	< 2000	< 2000	< 200	< 20	< 20	< 20	< 200	**3,650**
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	*<1.0*	**1.4**	*<1.0*	*< 1*	*< 5*	*< 5*	*< 500*	*< 100*	*< 100*	*< 10*	*< 1*	*< 1*	*< 1*	*< 10*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	NA	<2.0	<2.0	< 2	< 10	< 10	< 1000	< 1000	< 1000	< 100	< 2	< 2	< 2	< 20	--
2-Butanone (MEK)	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<12.5	<12.5	<20	<20	< 20	< 100	< 100	< 10000	< 2000	< 2000	< 200	< 20	< 20	< 20	< 200	--
n-Butylbenzene	ND	ND	ND	**4.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 5	< 5	< 500	< 100	< 100	< 10	< 1	< 1	< 1	< 10	--
Carbon Disulfide	ND	**0.59**	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<20	<20	< 20	< 100	< 100	*< 10000*	*< 2000*	*< 2000*	< 200	< 20	< 20	< 20	< 200	**768**
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<5.0	<2.0 (J)	<2.0	< 2	< 10	< 10	< 1000	< 1000	< 1000	< 100	< 2	< 2	< 2	< 20	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	**13**	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 5*	*< 5*	*< 500*	*< 100*	*< 100*	*< 10*	*< 1*	*< 1*	*< 1*	*< 10*	**0.274**
Dibromomethane	ND	ND	NA	**1.8**	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 5	< 5	< 500	< 100	< 100	< 10	< 1	< 1	< 1	< 10	--
1,1-Dichloroethane	ND	**8.3**	ND	**18**	ND	**13**	ND	**16**	**17**	**12**	**5.5**	**59**	**13**	ND	**1.5**	**1.7**	**3.9**	**4.2**	<1.0	**16**	**2.3**	**1.2**	**20**	< 1	< 100	< 100	< 100	< 10	**1.7**	< 1	**3.2**	< 10	**973**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 5	< 5	< 500	< 100	< 100	< 10	< 1	< 1	< 1	< 10	--
1,1-Dichloroethene	ND	**92**	ND	**56**	ND	**15**	**76**	**17**	**51**	**13**	**18**	**67**	**63**	ND	**5**	**8**	**38**	**42**	*<1.0*	**94**	**10**	**7**	**150**	**11**	*<500*	*< 100*	**134**	*< 10*	**15**	**17**	**28**	*< 10*	**0.0167**
cis-1,2-Dichloroethene	NA	NA	NA	**30,000**	**24,000**	**18,000**	NA	**10,000**	**19,000**	**8,800**	NA	**43,000**	**37,000**	**5,400**	**3,360**	**3,600**	**18,300**	**16,200**	**29,400**	**35,000**	**5,300**	**3,700**	**55,000**	**7,100**	**24,000**	**9,020**	**61,000**	**1,040**	**6,910**	**6,930**	**13,900**	**13,200**	**70**
trans-1,2-Dichloroethene	NA	NA	NA	**140**	ND	**200**	NA	**190**	**170**	**95**	NA	**350**	**210**	ND	**75**	**63**	**122**	**145**	**252**	**310**	**84**	**36**	**390 (J)**	**78**	*<500*	< 100	< 100	< 10	85	48	**181**	**105**	**100**
1,2-Dichloroethene, Total	**33,000**	**32,000**	**23,000**	**30,140**	**24,000**	**18,200**	**42,390**	**10,190**	**19,170**	**8,895**	**8,003**	**43,350**	**37,210**	**5,400**	**3,435**	**3,663**	**18,422**	**16,345**	**29,652**	**35,310**	**5,384**	**3,736**	**55,390**	**7,178**	**24,000**	**9,020**	**61,000**	**1,040**	**6,995**	**6,978**	**14,081**	**13,305**	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**3**	<1.0	<1.0	< 1	< 5	< 5	*< 500*	*< 100*	*< 100*	*< 10*	*< 1*	< 1	< 1	*< 10*	**1.25**
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 5	< 5	< 500	< 100	< 100	< 10	< 1	< 1	< 1	< 10	**700**
4-Methyl-2-pentanone (MIBK)	ND	**2.2**	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<12.5	<12.5	<20	<20	< 20	< 100	< 100	*< 10000*	*< 2000*	*< 2000*	< 200	< 20	< 20	< 20	< 200	**487**
Tetrachloroethene	ND	**27**	ND	**36**	ND	**78**	**220**	**280**	**250**	**720**	**67**	**37**	**97**	ND	**28**	**46**	**64**	**59**	**106**	**180**	**33**	**12**	**190**	**34**	*<500*	*< 100*	*< 100*	*< 10*	**5.5 J**	**12**	**1.8**	*< 10*	**1.43**
Toluene	ND	**21**	ND	ND	ND	ND	ND	**9**	**10**	**22**	ND	ND	ND	ND	ND	ND	ND	<1.0	**2**	**4**	<1.0	< 1	**6**	< 1	< 100	< 100	< 100	< 10	< 1	< 1	< 1	< 10	**1,000**
1,1,1-Trichloroethane	ND	**9.9**	ND	ND	ND	ND	ND	**13**	**21**	**13**	ND	**6**	**7**	ND	**1**	**3**	**5**	**3**	**10**	**11**	**1**	**2**	**10**	**1**	*<500*	*< 100*	*< 100*	< 10	< 1	< 1	< 1	< 10	**200**
1,1,2-Trichloroethane	ND	ND	ND	**3**	ND	ND	ND	**8**	**12**	ND	ND	**6**	ND	ND	ND	ND	ND	**2**	**5**	**5**	*<1.0*	*< 1*	*< 5*	*< 5*	*< 500*	*< 100*	*< 100*	*< 10*	*< 1*	*< 1*	*< 1*	*< 10*	**0.314**
Trichloroethene	**18,000**	**18,000**	**9,700**	**17,000**	**28,000**	**24,000**	**67,000**	**25,000**	**12,000**	**16,000**	**5,800**	**5,800**	**21,000**	**16,000**	**4,590**	**9,300**	**6,470**	**8,180**	**32,200**	**39,000**	**6,600**	**4,100**	**49,000**	**7,100**	**13,000**	**5,640**	**25,900**	**524**	**1,490**	**2,360**	**787**	**989**	**2.54**
1,2,4-Trimethylbenzene	ND	ND	NA	**4.3**	ND	ND	NA	ND	ND	**6**	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	NA	NA	< 5	< 25	< 25	< 2500	NA	< 500	< 50	< 5	< 5	< 5	< 50	--
Vinyl Chloride	ND	**480**	**340**	**1,100**	**680**	**200**	**380**	**59**	ND	**72**	**140**	**260**	**140**	ND	**3**	**4**	**122**	**403**	**396**	**220**	**38**	**16**	**420 (J)**	**26**	*<500*	**135**	**157**	*< 10*	**106**	**139**	**257**	**218**	**0.0283**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	**7**	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**3**	<1.0	< 1	< 5	< 5	< 500	< 100	< 100	< 10	< 1	< 1	< 1	< 10	**828**
TOTAL VOCs	**51,000**	**50,641**	**33,040**	**48,363**	**52,680**	**42,506**	**110,066**	**35,592**	**31,531**	**25,774**	**14,034**	**49,585**	**58,530**	**21,400**	**8,064**	**13,025**	**25,125**	**25,038**	**62,373**	**74,845**	**12,068**	**7,874**	**104,766**	**14,350**	**37,000**	**14,795**	**87,191**	**1,564**	**8,613**	**9,506**	**15,158**	**14,512**	--
Metals (mg/L)																																	
Arsenic, Dissolved	**0.008**	**0.0106**	**0.011**	**0.01**	**0.006**	ND	ND	ND	ND	ND	**0.026**	ND	0.0051	ND	ND	ND	ND	<0.10	<0.100	<0.100	<0.0100	< 0.01	**0.0103**	< 0.01	< 0.01	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	--
Barium, Dissolved	**0.181**	**0.139**	**0.144**	**0.11**	**0.04**	ND	ND	**0.035**	**0.079**	**0.04**	**0.059**	**0.08**	**0.055**	**0.027**	**0.053**	**0.027**	**0.121**	**0.089**	**0.048**	**0.0749**	**0.09**	**0.0674**	**0.102**	**0.0775**	**0.0669**	**0.078**	**0.071**	**0.046**	**0.079**	**0.05**	**0.077**	**0.052**	--
Cadmium, Dissolved	ND	ND	**271**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.030	<0.030	<0.005	<0.00100	< 0.001	< 0.001	< 0.001	< 0.001	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	--
Chromium, Dissolved total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.0052**	ND	ND	ND	ND	ND	ND	<0.040	<0.040	<0.005	<0.0100	< 0.01	< 0.01	< 0.01	< 0.01	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	--
Cyanide, Total	**0.03**	**0.014**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.005	<0.005	<0.005	<0.00500	< 0.005	< 0.005	< 0.005	< 0.005	**0.15**	**< 0.005**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	--
Lead, Dissolved	ND	ND	ND	ND	**0.0031**	ND	ND	**0.042**	ND	ND	**0.0026**	ND	ND	ND	ND	**0.15**	ND	<0.080	<0.080	<0.005	<0.00500	< 0.005	< 0.005	< 0.005	< 0.005	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	--
Nickel, Dissolved	ND	**0.0106**	ND	ND	ND	ND	ND	ND	ND	ND	**0.027**	ND	**0.032**	**0.0073**	**0.01**	**0.013**	**0.022**	**0.018**	**0.020**	**0.0169**	<0.0500	< 0.05	< 0.05	**0.0103**	**0.0132**	< 0.01	0.01	< 0.01	**0.012**	<0.01	<0.01	<0.01	--
Zinc, Dissolved	ND	**0.0212**	**0.015**	ND	ND	**0.023**	**0.03**	ND	ND	ND	**0.062**	ND	ND	ND	ND	ND	ND	<0.050	<0.050	<0.020	<0.0200	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that tot
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L
Metals reported in milligrams per liter (mg/L)
October 2002 data validated to Level IV; no flags were required for the data in this table collected on that dat
2003 and subsequent data were validated to Level I
(J) = estimated.

-- = No PRG assigned.
< = Not detected greater than the reporting limit provided
Bold = Analyte detected greater than the laboratory reporting limit
Italics = Reporting limit greater than the corresponding PRG
NA = Not analyzed.
ND = Not detected greater than the method detection limi
Shaded = Analyte detected greater than the corresponding PRG

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

	MONITORING WELL MW-10S (Southeast Area)																												PRG
CONSTITUENT Date Sampled	**3/1/88**	**8/1/88**	**7/23/92**	**11/8/95**	**8/27/96**	**11/18/97**	**4/21/98**	**10/15/98**	**4/12/99**	**10/13/99**	**5/4/00**	**10/2/00**	**4/19/01**	**10/31/01**	**4/23/02**	**10/25/02**	**4/16/03**	**10/15/03**	**4/20/04**	**10/22/04**	**4/19/05**	**10/13/05**	**4/26/06**	**4/17/07**	**10/17/07**	**4/14/08**	**4/20/09**	**4/20/10**	**(µg/L)**
VOCs (µg/L)																													
Acetone	ND	ND	ND	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<20.0	<20.0	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene	ND	**7**	ND	**1.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane	ND	ND	ND	**4.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	NA	<2.0	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<12.5	<12.5	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**4.5**	<1.0	<1.0	<1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	ND	ND	ND	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**768**
Chloroethane	ND	ND	ND	**2.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<5.0	<2.0 (J)	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	<2	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	**630**	**140**	**91**	ND	ND	ND	ND	**28**	**6.3**	**7.9**	ND	**5.7**	ND	ND	**1.9**	**5.1**	**1.1**	<1.0	<1.0	**1.2**	< 1	**2.8**	< 1	< 1	**2.9**	**2.9**	<1	< 1	**973**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	ND	**20**	ND	ND	ND	ND	ND	ND	ND	**6.8**	ND	ND	ND	ND	**1.4**	**2.6**	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene	NA	NA	NA	**37,000**	**15,000**	NA	**5,300**	**3,300**	**7,900**	**6.8**	**3,600**	**3,400**	**1,900**	**118**	**2,980**	**5,250**	**44**	**1,130**	**1,100**	**1,400**	**330**	**1,500**	**420**	**240**	**976**	**70**	**15**	**254**	**70**
trans-1,2-Dichloroethene	NA	NA	NA	**440**	**350**	NA	**100**	**170**	**200**	**12,000**	**170**	**100**	**130**	**6.2**	**162**	**148**	**47**	**81**	**130**	**100**	**26**	**65**	**47**	**22**	**77**	**10**	**2**	**59**	**100**
1,2-Dichloroethene, Total	**56,000**	**26,000**	**8,700**	**37,440**	**15,350**	**8,140**	**5,400**	**3,470**	**8,100**	**12,007**	**3,770**	**3,500**	**2,030**	**124.2**	**3,142**	**5,398**	**91**	**1,211**	**1,230**	**1,500**	**356**	**1,565**	**467**	**262**	**1,053**	**79**	**17**	**313**	(170)
1,2-Dichloropropane	ND	ND	ND	**6.3**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.2**	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	ND	**4**	ND	**5.7**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<12.5	<12.5	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene	ND	**3,500**	**9,000**	**270**	**50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	ND	**2**	ND	**5**	**70**	ND	ND	**11**	ND	ND	ND	ND	ND	ND	**3.4**	**4.3**	**1.3**	**1.9**	**12**	**2.7**	< 1	**2**	**1.8**	< 1	**5.7**	< 1	< 1	**1.9**	**2.54**
1,2,4-Trimethylbenzene	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	NA	NA	< 5	< 5	< 5	NA	<5	<5	<5	< 5	--
Vinyl Chloride	**5,500**	**2,800**	**3,100**	**2,700**	**650**	**370**	**130**	**1,000**	**320**	**700**	ND	**120**	ND	ND	**46.6**	**129**	**122**	**76**	**8.5**	**4**	**1.4**	**81**	**2**	**1.3**	**13.9**	*< 1*	*< 1*	**17.5**	**0.0283**
Xylenes, Total	ND	**28**	**96**	**21.3**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	<3	<3	<3	< 2	**828**
TOTAL VOCs	**62,130**	**32,501**	**20,987**	**40,456**	**16,120**	**8,510**	**5,530**	**4,509**	**8,426**	**12,722**	**3,770**	**3,626**	**2,030**	**124.2**	**3,195**	**5,540**	**215**	**1,293**	**1,251**	**1,508**	**357**	**1,651**	**471**	**264**	**1,076**	**82**	**17**	**332**	--
Metals (mg/L)																													
Arsenic, Dissolved	**0.009**	ND	ND	**0.006**	**0.002**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	<0.10	<0.100	**0.0242**	**<0.0100**	**0.0107**	< 0.01	< 0.01	< 0.1	< 0.1	< 0.1	<0.1	<0.1	--
Barium, Dissolved	**0.239**	**0.0537**	**0.137**	**0.04**	**0.04**	**0.062**	ND	**0.032**	**0.023**	**0.36**	**0.068**	**0.033**	**0.047**	**0.064**	**0.061**	NA	**0.035**	<0.020	**0.0324**	**0.0686**	**0.0539**	< 0.02	**0.0472**	**0.081**	**0.05**	**0.069**	**0.05**	**0.025**	--
Cadmium, Dissolved	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	<0.030	<0.030	<0.005	<0.00100	< 0.001	< 0.001	< 0.001	< 0.03	< 0.03	< 0.03	<0.03	<0.03	--
Chromium, Dissolved total	**0.017**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	<0.040	<0.040	**0.00849**	**<0.0100**	< 0.01	< 0.01	< 0.01	< 0.04	< 0.04	< 0.04	<0.04	<0.04	--
Cyanide, Total	**0.006**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.0094**	ND	**0.037**	NA	<0.005	**0.011**	**0.0381**	**0.0128**	**0.108**	< 0.005	< 0.005	**0.2**	**< 0.005**	**0.028**	**0.039**	**0.011**	--
Lead, Dissolved	ND	ND	ND	ND	**0.0028**	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17	NA	<0.080	<0.080	<0.005	<0.00500	< 0.005	< 0.005	< 0.005	< 0.08	< 0.08	< 0.08	<0.08	<0.08	--
Nickel, Dissolved	ND	ND	**0.021**	ND	ND	**0.021**	ND	ND	ND	ND	ND	**0.009**	**0.0052**	**0.012**	ND	NA	**0.035**	**0.017**	**0.0218**	**<0.0500**	< 0.05	< 0.05	< 0.05	< 0.01	**0.01**	**0.01**	<0.01	<0.01	--
Zinc, Dissolved	ND	**0.0089**	ND	ND	ND	ND	ND	ND	ND	**0.34**	ND	ND	ND	ND	ND	NA	<0.050	<0.050	**0.0295**	**0.0232**	**0.0325**	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	<0.05	<0.05	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total.
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).
October 2002 data validated to Level IV; no flags were required for the data in this table collected on that date.
October 2002 - dry conditions; VOC only.
2003 and subsequent data were validated to Level II

-- = No PRG assigned.
< = Not detected greater than the reporting limit provided.
Bold = Analyte detected greater than the laboratory reporting limit.
Italics = Reporting limit greater than the corresponding PRG.
NA = Not analyzed.
ND = Not detected greater than the method detection limit.
Shaded = Analyte detected greater than the corresponding PRG.

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

	MONITORING WELL MW-11S (Southeast Area)																			PRG
CONSTITUENT **Date Sampled**	**3/1/88**	**8/1/88**	**7/24/92**	**11/8/95**	**8/27/96**	**11/6/96**	**6/13/97**	**10/15/98**	**10/13/99**	**10/2/00**	**10/31/01**	**10/24/02**	**10/15/03**	**10/22/04**	**10/13/05**	**10/18/06**	**10/17/07**	**10/16/08**	**10/13/09**	**(µg/L)**
VOCs (µg/L)																				
Acetone	ND	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	ND	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	<1.0	<20.0	< 20	< 20	< 20	< 20	< 20	**768**
Chloroethane	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 2	<2	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	ND	ND	ND	**19**	**5.3**	**8.3**	**6.6**	ND	**5.4**	**5.7**	**8.6**	**5.9**	**5.9**	**3.7**	**3.7**	**2**	< 1	< 1	< 1	**973**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	**2.0**	*< 1*	**3.1**	**5.2**	**4.1**	**3.5**	**0.0167**
cis-1,2-Dichloroethene	NA	NA	ND	**280**	**150**	**200**	**170**	**160**	**440**	**460**	**669**	**694**	**746**	**490**	**400**	**460**	**483**	**376**	**299**	**70**
trans-1,2-Dichloroethene	NA	NA	ND	**15**	**6.5**	**10**	**10**	ND	ND	**12**	**15.7**	**8.7**	<1.0	**5.6**	**8.3**	**19**	< 1	**3.5**	**1.8**	**100**
1,2-Dichloroethene, Total	**44**	**19**	ND	**295**	**157**	**210**	**180**	**160**	**440**	**472**	**685**	**703**	**746**	**496**	**408**	**479**	**483**	**380**	**301**	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1 J	< 1	**1.43**
Toluene	ND	ND	ND	ND	**1.5**	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	ND	ND	ND	**4.1**	**17**	**3.8**	**4.3**	**8**	ND	**6.2**	**10.5**	**4.0**	**4.4**	**4.7**	**20**	**1.8**	**1.2**	**1.1**	< 1	**2.54**
1,2,4-Trimethylbenzene	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	ND	<1.0	NA	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride	**4**	**3**	**20**	**18**	**12**	**14**	**18**	**64**	**190**	**160**	**112**	**120**	**138**	**2.2**	**5.1**	**78**	**104**	**130**	**95**	**0.0283**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 2	**828**
TOTAL VOCs	**48**	**22**	**20**	**336**	**192**	**236**	**209**	**232**	**635**	**644**	**816**	**833**	**894**	**508**	**437**	**564**	**593**	**515**	**400**	--
Metals (mg/L)																				
Arsenic, Dissolved	ND	ND	ND	**0.001**	ND	ND	ND	ND	ND	ND	ND	ND	<0.100	<0.0100	< 0.01	< 0.01	< 0.1	< 0.1	<0.10	--
Barium, Dissolved	**0.418**	**0.285**	**0.17**	**0.11**	**0.05**	ND	ND	**0.042**	**0.082**	**0.059**	**0.085**	**0.122**	**0.106**	**0.0830**	**0.103**	**0.0793**	**0.0780**	**0.0850**	**0.065**	--
Cadmium, Dissolved	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.030	<0.00100	< 0.001	< 0.001	< 0.03	< 0.03	< 0.03	--
Chromium, Dissolved total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.040	<0.0100	< 0.01	< 0.01	< 0.04	< 0.04	< 0.04	--
Cyanide, Total	ND	**0.04**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.005	<0.00500	< 0.005	< 0.005	< 0.005	< 0.005	<0.005	--
Lead, Dissolved	ND	ND	ND	ND	**0.0028**	ND	ND	**0.015**	ND	ND	ND	ND	<0.080	<0.00500	< 0.005	< 0.005	< 0.08	< 0.08	< 0.08	--
Nickel, Dissolved	ND	ND	ND	ND	**0.03**	ND	ND	ND	ND	**0.006**	ND	ND	<0.010	<0.0500	< 0.05	< 0.05	< 0.01	< 0.01	<0.01	--
Zinc, Dissolved	**0.026**	**0.0145**	**0.122**	ND	ND	ND	**0.021**	ND	**0.025**	ND	ND	**0.052**	<0.050	<0.0200	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total.
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).
October 2002 data validated to Level IV; no flags were required for the data in this table collected on that date.
2003 and subsequent data were validated to Level II
-- = No PRG assigned.

< = Not detected greater than the reporting limit provided.
Bold = Analyte detected greater than the laboratory reporting limit.
Italics = Reporting limit greater than the corresponding PRG.
NA = Not analyzed.
ND = Not detected greater than the method detection limit.
Shaded = Analyte detected greater than the corresponding PRG.

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT	Date Sampled	MONITORING WELL MW-13S (Southeast Area)											PRG
		8/1/88	11/1/01	4/23/02	10/24/02	10/17/03	10/22/04	10/14/05	10/19/06	10/17/07	10/17/08	10/19/09	(µg/L)
VOCs (µg/L)													
Acetone		ND	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene		ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane		ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)		ND	NA	NA	NA	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide		ND	ND	ND	ND	<1.0	<20.0	< 20	< 20	< 20	< 20	< 20	**768**
Chloroethane		ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 2	<2	--
Chloroform		ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**973**
1,2-Dichloroethane		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene		ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene		NA	**350**	**200**	**214**	**128**	**87**	**75**	**51**	**66**	**36**	**38**	**70**
trans-1,2-Dichloroethene		NA	**12**	**6.4**	**6.1**	**3.3**	**1.9**	**2.4**	<1	<1	**1.6**	< 1	**100**
1,2-Dichloroethene, Total		**28**	**362**	**206**	**220**	**131**	**89**	**77**	**51**	**66**	**37**	**38**	(170)
1,2-Dichloropropane		ND	**17**	**8.7**	**13**	**7.1**	<1.0	**10**	**5.6**	**5.1**	**5.1**	**8.8**	**1.25**
Ethylbenzene		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)		ND	ND	ND	ND	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane		ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene		ND	**152**	**140**	**181**	**99.3**	**120**	**270**	**37**	**125**	**150**	**31**	**2.54**
1,2,4-Trimethylbenzene		ND	ND	ND	ND	<1.0	NA	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride		ND	**9.4**	**12**	**8.4**	**17.6**	**13**	**2.9**	**13**	**8.9**	**3.1**	**18**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 2	**828**
TOTAL VOCs		**28**	**540**	**367**	**423**	**255**	**222**	**360**	**107**	**205**	**195**	**96**	--
Metals (mg/L)													
Arsenic, Dissolved		**0.0036**	ND	ND	ND	<0.100	<0.0100	< 0.01	< 0.01	< 100	< 100	<0.10	--
Barium, Dissolved		**0.0705**	**0.19**	**0.12**	**0.218** (J)	**0.177**	**0.106**	**0.197**	**0.137**	**0.159**	**0.2**	**0.17**	--
Cadmium, Dissolved		ND	ND	ND	ND	<0.030	<0.00100	< 0.001	< 0.001	< 30	< 30	< 0.03	--
Chromium, Dissolved total		ND	ND	ND	ND	<0.040	<0.0100	< 0.01	< 0.01	< 40	< 40	< 0.04	--
Cyanide, Total		**0.048**	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.005	--
Lead, Dissolved		ND	ND	**0.16**	ND	<0.080	<0.00500	< 0.005	< 0.005	< 80	< 80	< 0.08	--
Nickel, Dissolved		**0.0167**	ND	ND	ND	<0.010	<0.0500	< 0.05	**0.0104**	< 10	< 10	**0.013**	--
Zinc, Dissolved		**0.0542**	ND	ND	**0.054** (J)	<0.050	<0.0200	< 0.02	< 0.02	< 50	< 50	< 0.05	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total.
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).
October 2002 data validated to Level IV; no flags were required for the data in this table collected on that date.
2003 and subsequent data were validated to Level II

-- = No PRG assigned.
< = Not detected greater than the reporting limit provided.
Bold = Analyte detected greater than the laboratory reporting limit.
Italics = Reporting limit greater than the corresponding PRG.
NA = Not analyzed.
ND = Not detected greater than the method detection limit.
Shaded = Analyte detected greater than the corresponding PRG.

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT / Date Sampled	MONITORING WELL MW-13D (Southeast Area) 1/28/2002[1]	PRG (µg/L)
VOCs (µg/L)		
Acetone	ND	**3,650**
Benzene	ND	**0.617**
Bromomethane	ND	--
2-Butanone (MEK)	ND	--
n-Butylbenzene	ND	--
Carbon Disulfide	ND	**768**
Chloroethane	ND	--
Chloroform	ND	**0.274**
Dibromomethane	ND	--
1,1-Dichloroethane	ND	**973**
1,2-Dichloroethane	ND	--
1,1-Dichloroethene	ND	**0.0167**
cis-1,2-Dichloroethene	ND	**70**
trans-1,2-Dichloroethene	ND	**100**
1,2-Dichloroethene, Total	ND	(170)
1,2-Dichloropropane	ND	**1.25**
Ethylbenzene	ND	**700**
4-Methyl-2-pentanone (MIBK)	ND	**487**
Tetrachloroethene	ND	**1.43**
Toluene	ND	**1,000**
1,1,1-Trichloroethane	ND	**200**
1,1,2-Trichloroethane	ND	**0.314**
Trichloroethene	ND	**2.54**
1,2,4-Trimethylbenzene	ND	--
Vinyl Chloride	ND	**0.0283**
Xylenes, Total	ND	**828**
TOTAL VOCs	ND	--
Metals (mg/L)		
Arsenic, Dissolved	<0.005	--
Barium, Dissolved	**0.10**	--
Cadmium, Dissolved	<0.03	--
Chromium, Dissolved total	<0.04	--
Cyanide, Total	NA	--
Lead, Dissolved	<0.08	--
Nickel, Dissolved	<0.02	--
Zinc, Dissolved	<0.05	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total.
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).
[1] Data suspect due to well integrity.

-- = No PRG assigned.
< = Not detected greater than the reporting limit provided.
Bold = Analyte detected greater than the laboratory reporting limit.
ND = Not detected greater than the method detection limit.
NA = Not analyzed.

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

	MONITORING WELL MW-14S (Aboveground Storage Tank Area)																															PRG
CONSTITUENT **Date Sampled**	**8/1/88**	**7/23/92**	**11/7/95**	**8/27/96**	**6/11/97**	**11/18/97**	**4/21/98**	**10/15/98**	**4/12/99**	**10/14/99**	**5/4/00**	**10/2/00**	**4/19/01**	**10/30/01**	**4/23/02**	**10/23/02**	**4/16/03**	**10/15/03**	**4/20/04**	**10/19/04**	**4/19/05**	**10/13/05**	**4/26/06**	**10/18/06**	**4/17/07**	**10/17/07**	**4/14/08**	**10/14/08**	**4/22/09**	**10/13/09**	**4/20/10**	**(µg/L)**
VOCs (µg/L)																																
Acetone	ND	ND	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<20.0	<20.0	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	NA	<2.0	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<12.5	<12.5	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	<1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	ND	ND	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**768**
Chloroethane	ND	ND	**5.4**	**22**	**6.6**	**6.6**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.8**	<5.0	<2.0 (J)	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	**16**	<2	<2	<2	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	**270**	**86**	**320**	**260**	**150**	**160**	**74**	**63**	**19**	**21**	**12**	**13**	**5.7**	**7.4**	**8.4**	**10.2**	**8.6**	**9.1**	**4.9**	**13**	**6.8**	**12**	**2.5**	**3.8**	**7.9**	**11**	**11**	**22**	**11**	**31**	**24**	**973**
1,2-Dichloroethane	ND	ND	**1.1**	**1.3**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene	NA	NA	**45**	**20**	**3.9**	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	**1**	**2**	**1**	**2**	**2**	**70**
trans-1,2-Dichloroethene	NA	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	**< 1**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**100**
1,2-Dichloroethene, Total	**650**	**71**	**45**	**20**	**3.9**	**2.3**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2**	**1**	**2**	**2**	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)	ND	ND	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<12.5	<12.5	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene	ND	ND	ND	**1.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	ND	**5**	**10**	**9.1**	**4.9**	**2.6**	ND	ND	**5.2**	ND	ND	ND	**14**	**15.1**	**4.7**	**2.0**	**9.5**	**3.5**	**4.3**	**10**	**10**	**6.8**	**1.5**	< 1	**2.2**	**5.6**	**2.7**	< 1	**3.5**	**2.6**	<1.0	**200**
1,1,2-Trichloroethane	**6**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	ND	ND	**5.5**	**10**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**3.0**	<1.0	< 1	< 1	< 1	< 1	< 1	**1.9**	*< 1*	*< 1*	*< 1*	< 1	< 1	**2.54**
1,2,4-Trimethylbenzene	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	NA	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride	**140**	**47**	**15**	**5.4**	**1.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**4.1**	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**3.4**	<1.0	**2.5**	*<1.0*	**0.0283**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**1.3**	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**828**
TOTAL VOCs	**1,066**	**209**	**402**	**329**	**167**	**172**	**74**	**63**	**24**	**21**	**12**	**13**	**20**	**23**	**13**	**16**	**24**	**13**	**14**	**23**	**17**	**19**	**4.0**	**3.8**	**10**	**19**	**14**	**43**	**16**	**38**	**26**	--
Metals (mg/L)																																
Arsenic, Dissolved	**0.0054**	**0.0077**	**0.014**	**0.004**	ND	ND	ND	ND	ND	**0.0079**	ND	**0.021**	ND	ND	ND	ND	<0.10	<0.100	**0.0221**	**0.0136**	**0.0135**	**0.0203**	<0.100	**0.0102**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	--
Barium, Dissolved	**0.0891**	**0.062**	**0.05**	**0.05**	**0.066**	**0.069**	**0.066**	**0.084**	**0.056**	**0.1**	**0.095**	**0.11**	**0.07**	**0.065**	**0.089**	**0.13**	**0.123**	**0.088**	**0.117**	**0.121**	**0.109**	**0.133**	**0.103**	**0.0998**	**0.14**	**0.099**	**0.075**	**0.054**	**0.046**	**0.057**	**0.047**	--
Cadmium, Dissolved	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.030	<0.030	<0.005	<0.00100	< 0.001	< 0.001	< 0.001	< 0.001	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	--
Chromium, Dissolved total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.040	<0.040	<0.005	<0.0100	< 0.01	< 0.01	< 0.01	< 0.01	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	--
Cyanide, Total	**0.035**	**0.006**	ND	ND	ND	ND	**0.0078**	ND	**0.017**	ND	ND	**0.009**	ND	**0.014**	ND	ND	**0.006**	<0.005	<0.005	<0.00500	< 0.005	< 0.005	< 0.005	< 0.005	**0.22**	<0.005	**0.0066**	**<0.005**	<0.005	<0.005	<0.005	--
Lead, Dissolved	ND	ND	ND	**0.0065**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17	ND	<0.080	<0.080	<0.005	<0.00500	< 0.005	< 0.005	< 0.005	< 0.005	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	--
Nickel, Dissolved	ND	ND	ND	0.02	**0.027**	**0.026**	**0.022**	ND	ND	ND	ND	**0.009**	**0.016**	**0.01**	**0.011**	**0.012**	<0.010	<0.010	**0.0102**	**<0.0500**	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	--
Zinc, Dissolved	**0.0035**	**0.021**	ND	ND	**0.026**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.050	<0.050	**0.0280**	**<0.0200**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total.
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).
October 2002 data validated to Level IV; no flags were required for the data in this table collected on that date.
2003 and subsequent data were validated to Level II
(J) = estimated.

-- = No PRG assigned.
< = Not detected greater than the reporting limit provided.
Bold = Analyte detected greater than the laboratory reporting limit.
Italics = Reporting limit greater than the corresponding PRG.
NA = not analyzed.
ND = Not detected greater than the method detection limit.
Shaded = Analyte detected greater than the corresponding PRG.

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

	MONITORING WELL MW-15S (Aboveground Storage Tank Area)														PRG
CONSTITUENT **Date Sampled**	**8/6/92**	**11/29/95**	**6/12/97**	**10/14/99**	**10/2/00**	**10/30/01**	**10/23/02**	**10/15/03**	**10/19/04**	**10/13/05**	**10/18/06**	**10/17/07**	**10/16/08**	**10/13/09**	**(µg/L)**
VOCs (µg/L)															
Acetone	ND	NA	NA	ND	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)	ND	NA	NA	NA	NA	NA	NA	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene	NA	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	ND	NA	NA	ND	ND	ND	ND	<1.0	<20	< 20	< 20	< 20	< 20	< 20	**768**
Chloroethane	ND	ND	ND	ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 2	<2	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	NA	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	**6**	**5.8**	**4.9**	ND	ND	**1.5**	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**973**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene	**10**	**13**	**41**	NA	ND	**33**	**5.9**	**13**	**2.9**	**5.8**	**2.6**	< 1	< 1	< 1	**70**
trans-1,2-Dichloroethene	ND	ND	**2.5**	NA	ND	**2.3**	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**100**
1,2-Dichloroethene, Total	**10**	**13**	**44**	ND	ND	**35**	**5.9**	**13**	**2.9**	**5.8**	**2.6**	< 1	< 1	< 1	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)	ND	NA	NA	ND	ND	ND	ND	<12.5	<20	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene	ND	**1.1**	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	ND	ND	**65**	**5.8**	**11**	**145**	**14**	**93**	**13**	**8.5**	**34**	**7.6**	**14**	**3.6**	**2.54**
1,2,4-Trimethylbenzene	NA	ND	ND	ND	ND	ND	ND	<1.0	NA	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride	ND	**28**	**2.3**	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	<1.0	**0.0283**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 2	**828**
TOTAL VOCs	**16**	**48**	**116**	**6**	**11**	**182**	**20**	**106**	**16**	**14**	**37**	**8**	**14**	**4**	--
Metals (mg/L)															
Arsenic, Dissolved	**0.0196**	ND	ND	**0.0059**	ND	ND	ND	<0.100	<0.0100	**0.0135**	<0.0100	<0.10	<0.10	<0.10	--
Barium, Dissolved	**0.219**	**0.14**	**0.053**	**0.086**	**0.097**	**0.09**	**0.106**	**0.079**	**0.103**	**0.0939**	**0.0803**	**0.12**	**0.05**	**0.046**	--
Cadmium, Dissolved	**0.015**	ND	ND	ND	ND	ND	ND	<0.030	<0.00100	< 0.001	< 0.001	< 0.03	< 0.03	< 0.03	--
Chromium, Dissolved total	ND	**0.011**	ND	ND	ND	ND	ND	<0.040	<0.0100	< 0.01	< 0.01	< 0.04	< 0.04	< 0.04	--
Cyanide, Total	ND	ND	ND	ND	ND	ND	ND	<0.005	<0.00500	< 0.005	< 0.005	< 0.005	< 0.005	<0.005	--
Lead, Dissolved	ND	ND	**0.0038**	ND	ND	ND	ND	<0.080	<0.00500	< 0.005	< 0.005	< 0.08	< 0.08	< 0.08	--
Nickel, Dissolved	ND	ND	ND	ND	**0.007**	ND	ND	**0.011**	<0.0500	< 0.05	**0.0108**	< 0.01	**0.01**	< 0.01	--
Zinc, Dissolved	**0.047**	ND	**0.055**	ND	ND	ND	ND	<0.050	**0.0210**	< 0.02	**0.0273**	< 0.05	< 0.05	< 0.05	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total.
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).
October 2002 data validated to Level IV; no flags were required for the data in this table collected on that date.
2003 and subsequent data were validated to Level II
-- = No PRG assigned.

< = Not detected greater than the reporting limit provided.
Bold = Analyte detected greater than the laboratory reporting limit.
Italics = Reporting limit greater than the corresponding PRG.
NA = Not analyzed.
ND = Not detected greater than the method detection limit.
Shaded = Analyte detected greater than the corresponding PRG.

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT	Date Sampled	MONITORING WELL MW-16S (Aboveground Storage Tank Area)																PRG
		8/6/92	11/7/95	11/6/96	6/11/97	10/15/98	10/14/99	10/2/00	11/1/01	10/23/02	10/15/03	10/19/04	10/13/05	10/18/06	10/17/07	10/16/08	10/13/09	(µg/L)
VOCs (µg/L)																		
Acetone		ND	NA	NA	NA	NA	ND	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)		ND	NA	NA	NA	NA	NA	NA	NA	NA	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene		NA	ND	NA	NA	NA	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide		ND	NA	NA	NA	NA	ND	ND	ND	ND	<1.0	<20.0	< 20	< 20	< 20	< 20	< 20	**768**
Chloroethane		ND	ND	NA	ND	ND	ND	ND	ND	ND	<5.0	<2.0	< 2	**2.6**	< 2	< 2	<2	--
Chloroform		ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane		NA	ND	NA	NA	NA	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane		**55**	**85**	**26**	**58**	**37**	**38**	ND	**6.1**	**30**	**63**	**26**	**21**	**35**	**26**	**21**	**12**	**973**
1,2-Dichloroethane		ND	**1.4**	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene		ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene		NA	**190**	**50**	**75**	NA	**93**	**93**	**18.5**	**87.4**	**147**	**73**	**93**	**110**	**77**	**57**	**38**	**70**
trans-1,2-Dichloroethene		NA	ND	**1.3**	**5.3**	NA	NA	ND	ND	**2.5**	**11.0**	**2.2**	**1.1**	**5.0**	< 1	**2.7**	**1.1**	**100**
1,2-Dichloroethene, Total		**41**	**190**	**51**	**80**	**130**	**93**	**93**	**19**	**90**	**158**	**75**	**94**	**115**	**77**	**59**	**39**	(170)
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)		ND	NA	NA	NA	NA	ND	ND	ND	ND	<12.5	20.0	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene		ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene		ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane		**8**	**2.7**	**1**	**2.9**	ND	**6.9**	ND	**1.4**	**10**	**56**	**17**	**6.7**	**47**	**35**	**21**	**4.2**	**200**
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene		ND	**6.9**	ND	ND	**47**	ND	ND	**1.0**	ND	**2.2**	<1.0	**4.5**	< 1	< 1	< 1	< 1	**2.54**
1,2,4-Trimethylbenzene		NA	ND	NA	NA	NA	ND	ND	ND	ND	<1.0	NA	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride		**100**	**41**	**19**	**16**	**37**	**15**	ND	ND	**15.6**	*<1.0*	**8.6**	**9.5**	**4.1**	**2.3**	**5.2**	**4**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 2	**828**
TOTAL VOCs		**204**	**327**	**97**	**157**	**251**	**153**	**93**	**27**	**146**	**280**	**147**	**136**	**204**	**139**	**107**	**59**	--
Metals (mg/L)																		
Arsenic, Dissolved		**0.0025**	**0.003**	ND	ND	ND	ND	**0.021**	ND	ND	<0.100	<0.0100	< 0.01	< 0.01	< 0.01	< 0.01	<0.10	--
Barium, Dissolved		**0.05**	**0.06**	**0.065**	ND	**0.054**	**0.059**	**0.11**	**0.034**	**0.146**	**0.081**	**0.0755**	**0.102**	**0.0813**	**0.098**	**0.037**	**0.033**	--
Cadmium, Dissolved		ND	ND	ND	**0.00024**	ND	ND	ND	ND	ND	<0.030	<0.00100	< 0.001	< 0.001	< 0.03	< 0.03	< 0.03	--
Chromium, Dissolved total		ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.040	<0.0100	< 0.01	< 0.01	< 0.04	< 0.04	< 0.04	--
Cyanide, Total		ND	ND	ND	**0.011**	ND	ND	**0.009**	ND	ND	**0.021**	<0.00500	< 0.005	**0.00386**	< 0.005	< 0.005	<0.005	--
Lead, Dissolved		ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.080	<0.00500	< 0.005	< 0.005	< 0.08	< 0.08	< 0.08	--
Nickel, Dissolved		ND	ND	ND	ND	ND	ND	**0.009**	ND	ND	<0.010	<0.0500	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01	--
Zinc, Dissolved		**0.038**	ND	ND	**0.028**	ND	ND	ND	ND	**0.06**	<0.050	<0.0200	**0.0242**	<0.0200	<0.05	<0.05	< 0.05	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total.
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).
October 2002 data validated to Level IV; no flags were required for the data in this table collected on that date.
2003 and subsequent data were validated to Level II
-- = No PRG assigned.

< = Not detected greater than the reporting limit provided.
Bold = Analyte detected greater than the laboratory reporting limit.
Italics = Reporting limit greater than the corresponding PRG.
NA = Not analyzed.
ND = Not detected greater than the method detection limit.
Shaded = Analyte detected greater than the corresponding PRG.

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT / Date Sampled	MONITORING WELL MW-18S (Aboveground Storage Tank Area) 8/1/1992[1]	11/1/01	PRG (µg/L)
VOCs (µg/L)			
Acetone	ND	ND	**3,650**
Benzene	ND	ND	**0.617**
Bromomethane	ND	ND	--
2-Butanone (MEK)	NA	NA	--
n-Butylbenzene	ND	ND	--
Carbon Disulfide	ND	ND	**768**
Chloroethane	ND	ND	--
Chloroform	ND	ND	**0.274**
Dibromomethane	ND	ND	--
1,1-Dichloroethane	ND	ND	**973**
1,2-Dichloroethane	ND	ND	--
1,1-Dichloroethene	ND	ND	**0.0167**
cis-1,2-Dichloroethene	ND	ND	**70**
trans-1,2-Dichloroethene	ND	ND	**100**
1,2-Dichloroethene, Total	ND	ND	(170)
1,2-Dichloropropane	ND	ND	**1.25**
Ethylbenzene	ND	ND	**700**
4-Methyl-2-pentanone (MIBK)	ND	ND	**487**
Tetrachloroethene	ND	ND	**1.43**
Toluene	ND	ND	**1,000**
1,1,1-Trichloroethane	ND	ND	**200**
1,1,2-Trichloroethane	ND	ND	**0.314**
Trichloroethene	ND	ND	**2.54**
1,2,4-Trimethylbenzene	ND	ND	--
Vinyl Chloride	ND	**1.6**	**0.0283**
Xylenes, Total	ND	ND	**828**
TOTAL VOCs	ND	**1.6**	--
Metals (mg/L)			
Arsenic, Dissolved	ND	ND	--
Barium, Dissolved	**0.177**	**0.084**	--
Cadmium, Dissolved	ND	ND	--
Chromium, Dissolved total	ND	ND	--
Cyanide, Total	NA	NA	--
Lead, Dissolved	ND	ND	--
Nickel, Dissolved	ND	ND	--
Zinc, Dissolved	**5.56**	**0.2**	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total.
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).
[1] August 1992 data from Technical Memorandum (Warzyn, November 1992).
-- = No PRG assigned.

Bold = Analyte detected greater than the laboratory reporting limit.
NA = Not analyzed.
ND = Not detected greater than the method detection limit.
Shaded = Analyte detected greater than the corresponding PRG.

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

	MONITORING WELL MW-83AS (Southeast Area)																																	PRG
CONSTITUENT **Date Sampled**	**3/1988[1]**	**8/1988[1]**	**7/23/1992**	**11/08/1995**	**8/27/1996**	**6/13/1997**	**11/18/1997**	**4/21/1998**	**10/15/1998**	**4/12/1999**	**10/13/1999**	**5/04/2000**	**10/02/2000**	**4/19/2001**	**10/31/2001**	**4/23/2002**	**10/24/2002**	**4/16/2003**	**10/15/2003**	**4/20/2004**	**10/20/2004**	**4/19/2005**	**10/12/2005**	**4/26/2006**	**10/18/2006**	**4/17/07**	**10/17/07**	**4/14/08**	**10/14/08**	**4/20/09**	**10/13/09**	**4/20/10**	**(µg/L)**
VOCs (µg/L)																																		
Acetone	ND	ND	ND	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<20.0	<20.0	<20	<20	< 20	< 20	< 20	**27**	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	NA	<2.0	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<12.5	<12.5	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	ND	ND	ND	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**768**
Chloroethane	ND	ND	ND	ND	ND	**5.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<5.0	<2.0 (J)	<2.0	**2.3**	**2.1**	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	ND	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	ND	ND	ND	**48**	**72**	**51**	**56**	ND	**42**	**39**	**43**	**38**	**26**	ND	**31**	**29.1**	**33.3**	**18.1**	**23.7**	**21**	**23**	**24**	**19**	**14**	**17**	**14**	**16**	**16**	**13**	**10**	**13**	**12**	**973**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	ND	ND	ND	ND	ND	**4.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	**1.5**	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.017**
cis-1,2-Dichloroethene	ND	ND	NA	**15,000**	**15,000**	**11,000**	NA	**5,200**	**1,300**	**4,000**	**3,400**	**2,200**	**1,500**	**750**	**1,730**	**1,190**	**1,190**	**698**	**839**	**700**	**800**	**800**	**570**	**360**	**430**	**435**	**406**	**331**	**240**	**247**	**294**	**251**	**70**
trans-1,2-Dichloroethene	ND	ND	NA	**68**	**110**	**56**	NA	ND	**32**	**21**	**17**	**14**	**5.9**	ND	**21**	**12.6**	**2.3**	**2.5**	<1.0	**1.6**	**1.5**	**2.2**	**1.3**	< 1	**2.6**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**100**
1,2-Dichloroethene, Total	ND	ND	**12,000**	**15,068**	**15,110**	**11,056**	**8,700**	**5,200**	**1,332**	**4,021**	**3,417**	**2,214**	**1,506**	**750**	**1,751**	**1,203**	**1,192**	**701**	**839**	**702**	**802**	**802**	**571**	**360**	**433**	**435**	**406**	**331**	**240**	**247**	**294**	**251**	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<12.5	<12.5	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1	< 1	**1.43**
Toluene	ND	**0.7**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.314**
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**1.0**	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.54**
1,2,4-Trimethylbenzene	ND	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	NA	NA	< 5	< 5	< 5	< 5	NA	< 5	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride	**110**	**140**	**1,200**	**1,700**	**1,600**	**1,400**	**1,400**	**900**	**610**	**990**	**830**	**550**	**380**	**220**	**399**	**387**	**447**	**338**	**486**	**370**	**640**	**670**	**520**	**660**	**540**	**900**	**620**	**437**	**619**	**626**	**282**	**280**	**0.028**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**828**
TOTAL VOCs	**110**	**141**	**13,200**	**16,816**	**16,782**	**12,516**	**10,156**	**6,100**	**1,984**	**5,050**	**4,290**	**2,802**	**1,912**	**970**	**2,181**	**1,619**	**1,673**	**1,057**	**1,349**	**1,094**	**1,465**	**1,500**	**1,112**	**1,034**	**1,017**	**1,349**	**1,042**	**784**	**872**	**883**	**589**	**543**	--
Metals (mg/L)																																		
Arsenic, Dissolved	ND	ND	ND	**0.003**	ND	**0.0022**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.10	<0.100	<0.0100	<0.0100	**0.0123**	< 0.01	< 0.01	< 0.01	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	--
Barium, Dissolved	**0.186**	**0.117**	**0.111**	**0.18**	**0.09**	ND	ND	**0.048**	**0.055**	**0.088**	**0.09**	**0.094**	**0.068**	**0.063**	**0.17**	**0.068**	**0.16**	**0.125**	**0.078**	**0.091**	**0.109**	**0.116**	**0.112**	**0.104**	**0.102**	**0.096**	**0.078**	**0.095**	**0.068**	**0.072**	**0.057**	**0.063**	--
Cadmium, Dissolved	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.030	<0.030	<0.005	<0.00100	< 0.001	< 0.001	< 0.001	< 0.001	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	--
Chromium, Dissolved total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.040	<0.040	<0.005	<0.0100	< 0.01	< 0.01	< 0.01	< 0.01	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	--
Cyanide, Total	ND	**0.022**	**0.006**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.005	**0.0089**	<0.005	<0.00500	< 0.005	< 0.005	< 0.005	< 0.005	**0.032**	< 0.005	**0.005**	< 0.005	< 0.005	< 0.005	< 0.005	--
Lead, Dissolved	ND	ND	ND	ND	**0.011**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.18**	ND	<0.080	<0.080	<0.005	<0.00500	< 0.005	< 0.005	< 0.005	< 0.005	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	--
Nickel, Dissolved	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.002**	ND	ND	ND	ND	<0.010	<0.010	<0.0100	<0.0500	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	--
Zinc, Dissolved	ND	**0.0054**	ND	ND	ND	**0.041**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.063**	<0.050	<0.050	<0.0200	<0.0200	**0.0314**	< 0.02	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total.
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).
[1] Possible mislabeling of sample occurred in 1988.
October 2002 data validated to Level IV; no flags were required for the data in this table collected on that date.
2003 and subsequent data were validated to Level II
(J) = estimated.

-- = No PRG assigned.
< = Not detected greater than the reporting limit provided.
Bold = Analyte detected greater than the laboratory reporting limit.
Italics = Reporting limit greater than the corresponding PRG.
NA = Not analyzed.
ND = Not detected greater than the method detection limit.
Shaded = Analyte detected greater than the corresponding PRG.

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT	MONITORING WELL MW-83AD (Southeast Area)																		PRG
Date Sampled	3/1/88	8/1/88	7/31/92	11/8/95	11/6/96	6/13/97	10/15/98	10/13/99	10/2/00	10/31/01	10/24/02	10/15/03	10/20/04	10/12/05	10/18/06	10/17/07	10/16/08	10/13/09	(µg/L)
VOCs (µg/L)																			
Acetone	ND	ND	ND	NA	NA	NA	NA	NA	NA	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)	ND	ND	ND	NA	NA	NA	NA	NA	NA	ND	ND	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND	<1.0	<20.0	< 20	< 20	< 20	< 20	< 20	**768**
Chloroethane	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 2	<2	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	ND	ND	**0.6**	ND	1.5	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**973**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene	ND	NA	NA	**140**	**88**	**60**	**38**	**33**	**8.9**	**9.3**	**3.5**	**2.4**	**2.2**	**2**	**5.3**	**11**	**23**	**41**	**70**
trans-1,2-Dichloroethene	ND	NA	NA	ND	ND	ND	ND	ND	NA	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**100**
1,2-Dichloroethene, Total	ND	**7.2**	**10**	**140**	**88**	**60**	**38**	**33**	**8.9**	**9.3**	**3.5**	**2.4**	**2.2**	**2**	**5.3**	**11**	**23**	**41**	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene	ND	**0.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	**13**	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**2.54**
1,2,4-Trimethylbenzene	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	*<1.0*	NA	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride	**4**	**38**	**3**	**110**	**73**	**54**	**8.8**	**35**	**16**	**3.9**	**5.8**	**3.4**	*<1.0*	**1.2**	**8.7**	**6.6**	**19**	**29**	**0.0283**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 2	**828**
TOTAL VOCs	**4**	**46**	**14**	**250**	**163**	**114**	**47**	**81**	**25**	**13**	**9.3**	**5.8**	**2.2**	**3.2**	**14**	**18**	**42**	**70**	--
Metals (mg/L)																			
Arsenic, Dissolved	NA	NA	ND	**0.004**	ND	ND	ND	ND	ND	ND	ND	<0.100	<0.0100	**0.0161**	<0.01	< 0.1	< 0.1	<0.10	--
Barium, Dissolved	NA	NA	**0.022**	**0.25**	**0.24**	**0.27**	**0.17**	**0.19**	**0.17**	**0.16**	**0.288**	**0.217**	**0.149**	**0.213**	**0.209**	**0.17**	**0.15**	**0.13**	--
Cadmium, Dissolved	NA	NA	**0.005**	ND	ND	ND	ND	ND	ND	ND	ND	<0.030	<0.00100	< 0.001	< 0.001	< 0.03	< 0.03	< 0.03	--
Chromium, Dissolved total	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.040	<0.0100	< 0.01	< 0.01	< 0.04	< 0.04	< 0.04	--
Cyanide, Total	NA	NA	**0.07**	ND	ND	**0.014**	ND	ND	ND	ND	ND	<0.005	<0.00500	< 0.005	< 0.005	< 0.005	< 0.005	<0.005	--
Lead, Dissolved	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.080	<0.00500	< 0.005	< 0.005	< 0.08	< 0.08	< 0.08	--
Nickel, Dissolved	NA	NA	ND	ND	ND	ND	ND	ND	**0.004**	ND	ND	<0.010	<0.0500	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01	--
Zinc, Dissolved	NA	NA	ND	**0.01**	ND	**0.02**	**0.022**	**0.02**	ND	**0.069**	**0.057**	<0.050	**0.0287**	< 0.02	< 0.02	< 0.05	< 0.05	< 0.05	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total.
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).
October 2002 data validated to Level IV; no flags were required for the data in this table collected on that date.
2003 and subsequent data were validated to Level II
-- = No PRG assigned.

< = Not detected greater than the reporting limit provided.
Bold = Analyte detected greater than the laboratory reporting limit.
Italics = Reporting limit greater than the corresponding PRG.
NA = Not analyzed.
ND = Not detected greater than the method detection limit.
Shaded = Analyte detected greater than the corresponding PRG.

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

	MONITORING WELL MW-83B (Northeast Area)																PRG
CONSTITUENT **Date Sampled**	**3/1988**	**7/31/92**	**6/7/96**	**11/6/96**	**6/12/97**	**10/15/98**	**10/2/00**	**10/31/01**	**10/23/02**	**10/15/03**	**10/20/04**	**10/12/05**	**10/18/06**	**10/17/07**	**10/16/08**	**10/13/09**	**(µg/L)**
VOCs (µg/L)																	
Acetone	**270**	ND	ND	NA	NA	ND	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)	**23**	ND	ND	NA	NA	NA	NA	NA	NA	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene	ND	NA	ND	NA	NA	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	ND	NA	ND	NA	NA	ND	ND	ND	ND	<1.0	<20.0	< 20	< 20	< 20	< 20	< 20	**768**
Chloroethane	ND	ND	ND	NA	ND	ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 2	<2	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	ND	NA	ND	NA	NA	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**973**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**70**
trans-1,2-Dichloroethene	ND	NA	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**100**
1,2-Dichloroethene, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	NA	NA	ND	ND	ND	ND	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**2.54**
1,2,4-Trimethylbenzene	ND	NA	ND	NA	NA	ND	ND	ND	ND	<1.0	NA	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	<1.0	**0.0283**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 2	**828**
TOTAL VOCs	**293**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
Metals (mg/L)																	
Arsenic, Dissolved	ND	ND	**0.003**	**0.0031**	**0.0027**	ND	**0.0054**	ND	ND	<0.100	<0.0100	< 0.01	< 0.01	< 0.1	< 0.1	<0.10	--
Barium, Dissolved	ND	ND	**0.16**	**0.22**	**0.19**	**0.16**	**0.26**	**0.18**	**0.227**	**0.257**	**0.225**	**0.203**	**0.195**	**0.23**	**0.17**	**0.14**	--
Cadmium, Dissolved	ND	**0.005**	ND	ND	ND	ND	ND	ND	ND	<0.030	<0.00100	< 0.001	< 0.001	< 0.03	< 0.03	< 0.03	--
Chromium, Dissolved total	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.040	<0.0100	< 0.01	< 0.01	< 0.04	< 0.04	< 0.04	--
Cyanide, Total	ND	**0.019**	ND	ND	ND	ND	ND	ND	ND	**0.0059**	<0.00500	< 0.005	< 0.005	< 0.005	< 0.005	<0.005	--
Lead, Dissolved	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.080	<0.00500	< 0.005	< 0.005	< 0.08	< 0.08	< 0.08	--
Nickel, Dissolved	ND	ND	**0.02**	**0.021**	ND	ND	ND	ND	ND	<0.010	<0.0500	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01	--
Zinc, Dissolved	ND	ND	**0.1**	**0.081**	**0.029**	ND	ND	ND	ND	<0.050	**0.0252**	**0.027**	<0.0200	<0.05	<0.05	< 0.05	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total.
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).
October 2002 data validated to Level IV; no flags were required for the data in this table collected on that date.
2003 and subsequent data were validated to Level II

-- = No PRG assigned.
< = Not detected greater than the reporting limit provided.
Bold = Analyte detected greater than the laboratory reporting limit.
Italics = Reporting limit greater than the corresponding PRG.
NA = Not analyzed.
ND = Not detected greater than the method detection limit.

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT / Date Sampled	MONITORING WELL MW-83DS (Formerly GW-83E; Southeast Area)											PRG
	8/1/88	11/1/01	4/23/02	10/24/02	10/17/03	10/22/04	10/14/05	10/19/06	10/17/07	10/17/08	10/19/09	(µg/L)
VOCs (µg/L)												
Acetone	ND	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)	ND	NA	NA	NA	**14.4**	<20.0	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	ND	ND	ND	ND	<1.0	<20.0	< 20	< 20	< 20	< 20	< 20	**768**
Chloroethane	ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 2	<2	--
Chloroform	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	ND	**1.1**	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**973**
1,2-Dichloroethane	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene	ND	**191**	**350**	**320**	**239**	**190**	**110**	**79**	**66**	**47**	**44**	**70**
trans-1,2-Dichloroethene	ND	**1.1**	ND	ND	**1.1**	<1.0	< 1	< 1	< 1	< 1	< 1	**100**
1,2-Dichloroethene, Total	ND	**192**	**350**	**320**	**240**	**190**	**110**	**79**	**66**	**47**	**44**	(170)
1,2-Dichloropropane	ND	ND	ND	**1.0**	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	ND	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**2.54**
1,2,4-Trimethylbenzene	ND	ND	ND	ND	<1.0	NA	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride	ND	**16**	**120**	**188**	**80**	**76**	**54**	**31**	**44**	**36**	**28**	**0.0283**
Xylenes, Total	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 2	**828**
TOTAL VOCs	ND	**209**	**470**	**509**	**334**	**266**	**164**	**110**	**110**	**82**	**72**	--
Metals (mg/L)												
Arsenic, Dissolved	**0.003**	ND	ND	ND	<0.100	<0.0100	< 0.01	< 0.01	< 100	< 100	<0.10	--
Barium, Dissolved	**0.211**	**0.077**	**0.12**	**0.153**	**0.106**	**0.0947**	**0.139**	**0.139**	**0.0972**	**0.12**	**0.12**	--
Cadmium, Dissolved	ND	ND	ND	ND	<0.030	<0.00100	< 0.001	< 0.001	< 30	< 30	< 0.03	--
Chromium, Dissolved total	ND	ND	ND	ND	<0.040	<0.0100	< 0.01	< 0.01	< 40	< 40	< 0.04	--
Cyanide, Total	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.005	--
Lead, Dissolved	ND	ND	**0.16**	ND	<0.080	<0.00500	< 0.005	< 0.005	< 80	< 80	< 0.08	--
Nickel, Dissolved	ND	ND	ND	ND	<0.010	<0.0500	< 0.05	< 0.05	< 10	< 10	< 0.01	--
Zinc, Dissolved	ND	**0.062**	ND	ND	<0.050	<0.0200	< 0.02	**0.0258**	< 50	< 50	< 0.05	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total.
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).
October 2002 data validated to Level IV; no flags were required for the data in this table collected on that date.
2003 and subsequent data were validated to Level II
-- = No PRG assigned.

< = Not detected greater than the reporting limit provided.
Bold = Analyte detected greater than the laboratory reporting limit.
Italics = Reporting limit greater than the corresponding PRG.
NA = Not analyzed.
ND = Not detected greater than the method detection limit.
Shaded = Analyte detected greater than the corresponding PRG.

Table D-2
Monitoring Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT / Date Sampled	MONITORING WELL MW-83DD (Formerly GW-83D; Southeast Area) 8/1988	11/6/01	PRG (µg/L)
VOCs (µg/L)			
Acetone	ND	ND	**3,650**
Benzene	ND	ND	**0.617**
Bromomethane	ND	ND	--
2-Butanone (MEK)	ND	NA	--
n-Butylbenzene	ND	ND	--
Carbon Disulfide	ND	ND	**768**
Chloroethane	ND	ND	--
Chloroform	ND	ND	**0.274**
Dibromomethane	ND	ND	--
1,1-Dichloroethane	ND	ND	**973**
1,2-Dichloroethane	ND	ND	--
1,1-Dichloroethene	ND	ND	**0.0167**
cis-1,2-Dichloroethene	ND	ND	**70**
trans-1,2-Dichloroethene	ND	ND	**100**
1,2-Dichloroethene, Total	ND	ND	(170)
1,2-Dichloropropane	ND	ND	**1.25**
Ethylbenzene	ND	ND	**700**
4-Methyl-2-pentanone (MIBK)	ND	ND	**487**
Tetrachloroethene	ND	ND	**1.43**
Toluene	ND	ND	**1,000**
1,1,1-Trichloroethane	ND	ND	**200**
1,1,2-Trichloroethane	ND	ND	**0.314**
Trichloroethene	ND	ND	**2.54**
1,2,4-Trimethylbenzene	ND	ND	--
Vinyl Chloride	ND	ND	**0.0283**
Xylenes, Total	ND	ND	**828**
TOTAL VOCs	ND	ND	--
Metals (mg/L)			
Arsenic, Dissolved	**0.057**	ND	--
Barium, Dissolved	**0.009**	**0.05**	--
Cadmium, Dissolved	ND	ND	--
Chromium, Dissolved total	ND	ND	--
Cyanide, Total	**0.022**	NA	--
Lead, Dissolved	**0.0023**	ND	--
Nickel, Dissolved	ND	ND	--
Zinc, Dissolved	**0.004**	ND	--

Notes:

In samples where total 1,2-dichloroethene has been listed, cis-1,2-dichloroethene is included in that total.
Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
Metals reported in milligrams per liter (mg/L).

Bold = Analyte detected greater than the laboratory reporting limit.
NA = Not analyzed.
ND = Not detected greater than the method detection limit.
-- = No PRG assigned.

Table D-3
Columbia City Municipal Water Supply Well Results - Volatile Organic Compounds and Polychlorinated Biphenyls
Wayne Reclamation & Recycling

Date Sampled:	10/14/1998		12/9/1999		10/3/2000		10/31/2001		10/23/2002		10/16/2003		10/22/2004		10/18/2005		1/13/2006	10/19/2006		11/15/2007		10/15/2008		10/14/2009	
CONSTITUENT	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**
VOCs (µg/L)																									
Benzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromomethane	<10	<10	<10	<10	<10	<10	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
2-Butanone (MEK)	<50	<50	<50	<50	<50	<50	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Carbon Disulfide	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Carbon Tetrachloride	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorodibromomethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	<10	<10	<10	<10	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chloroform	<5.0	<5.0	<20	<20	<20	<20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloromethane	<10	<10	<10	<10	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,1-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichlororethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	**1.4***	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,2-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,3-Dichloropropene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Hexanone	<50	<50	<50	<50	<50	<50	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Methylene Chloride	<10	<10	<10	<10	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
4-Methyl-2-pentanone (MIBK)	<50	<50	<50	<50	<50	<50	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Styrene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl Chloride	<2	<2	<5.0	<5.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Xylenes, Total	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
PCBs (µg/L)																									
Aroclor 1016	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	<1	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Volatile organic compounds (VOCs) and polychlorinated biphenyls (PCBs) reported in micrograms per liter (µg/L).
PW = Public well.
* The detection of cis-1,2-dichloroethene in PW-8 on 10/18/05 is considered a laboratory artifact from previous analyses.

< = Not detected above the reporting limit provided.
NA = Not analyzed.

Table D-4
Columbia City Municipal Water Supply Well Results - Metals and Inorganics
Wayne Reclamation & Recycling

Date Sampled:	10/14/1998		12/9/1999		10/3/2000		10/31/2001		10/23/2002		10/16/2003		10/22/2004		10/18/2005		10/19/2006		11/15/2007		10/15/2008		10/14/2009	
CONSTITUENT	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**	**PW-7**	**PW-8**
Total Metals (mg/L)																								
Aluminum	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	<0.050	<0.050	<0.100	<0.100	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Antimony	<0.005	<0.005	<0.005	<0.005	<0.026	<0.026	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.100	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	**6.1**	<0.006	<0.006	<0.006
Arsenic	**0.0083**	**0.0071**	**0.0091**	**0.0056**	<0.028	<0.028	**0.0087**	**0.0062**	**0.0087**	**0.0066**	<0.100	<0.100	<0.010	<0.010	<0.010	0.0106	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Barium	**0.15**	**0.13**	**0.12**	**0.11**	**0.15**	**0.13**	**0.161**	**0.138**	**0.150**	**0.132**	**0.155**	**0.135**	**0.144**	**0.138**	**0.164**	**0.143**	**0.165**	**0.133**	**0.157**	**0.13**	**0.194**	**0.147**	**0.154**	**0.132**
Beryllium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.0010	<0.0010	<0.0010	<0.0010	<0.005	<0.005	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Cadmium	<0.005	<0.005	<0.010	<0.010	<0.005	<0.005	<0.0010	<0.0010	<0.0010	<0.0010	<0.030	<0.030	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	**86**	**83**	**70**	**67**	**87**	**80**	**80.2**	**75.8**	**89.8** (J)	**92.9**	**95.0**	**84.5**	**79**	**80.4**	**95.4**	**89.4**	**94.1**	**82**	**89**	**79.3**	**90.4**	**82.4**	**83.3**	**77.9**
Chromium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.040	<0.040	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cobalt	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.0050	<0.0050	<0.0050	<0.0050	<0.020	<0.020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.010	<0.010	<0.010	<0.010	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.020	<0.020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Iron	**2**	**1.6**	**1.6**	**1.4**	**1.8**	**1.5**	**1.82**	**1.5**	**1.85**	**1.66**	**2.15**	**1.67**	**1.79**	**1.6**	**2.02**	**1.64**	**2.1**	**1.59**	**1.97**	**1.56**	**1.21**	**1.62**	**1.87**	**1.54**
Lead	<0.005	<0.005	<0.005	<0.005	<0.018	<0.018	<0.0010	<0.0010	<0.0010	<0.0010	<0.080	<0.080	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Magnesium	**35**	**36**	**28**	**29**	**34**	**34**	**32.1**	**32.8**	**33.7** (J)	**36.7**	**38.1**	**36.0**	**30.9**	**34.1**	**36.5**	**36**	**36.2**	**33.3**	**35.3**	**33.6**	**36**	**35.2**	**33.4**	**32.8**
Manganese	**0.16**	**0.14**	**0.11**	**0.12**	**0.12**	**0.13**	**0.109**	**0.114**	**0.112**	**0.119**	**0.137**	**0.143**	**0.111**	**0.134**	**0.123**	**0.135**	**0.13**	**0.133**	**0.128**	**0.134**	**0.08**	**0.137**	**0.12**	**0.131**
Mercury	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Molybdenum	**0.023**	**0.031**	**0.025**	**0.031**	<0.020	**0.021**	<0.020	**0.021**	NA	NA	**0.036**	**0.043**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	<0.020	<0.020	<0.020	<0.020	<0.002	<0.0068	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Potassium	**1.4**	**1.5**	<5.0	<5.0	<5.0	<5.0	**1.6**	**1.8**	**1.8**	**2.4**	**1.90**	**2.00**	**1.59**	**1.87**	**1.93**	**2.11**	**1.9**	**1.93**	**1.87**	**1.9**	**2.12**	**2.15**	**1.84**	**1.98**
Selenium	<0.005	<0.005	<0.005	<0.005	<0.036	<0.005	<0.20	<0.20	<0.0050	<0.0050	<0.100	<0.100	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Silver	<0.020	<0.020	<0.020	<0.020	<0.005	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.040	<0.040	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Sodium	**13**	**17**	**11**	**13**	**14**	**17**	**14**	**15.8**	**12.8**	**17.7**	**16.1**	**18.4**	**12.8**	**17**	**15.2**	**18.3**	**15.1**	**17.4**	**13.6**	**17.1**	**15.9**	**18.4**	**14.7**	**17.9**
Thallium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0100	<0.0100	<0.0010	<0.0010	<0.010	<0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	**0.0044**	<0.002	<0.002	<0.002
Vanadium	<0.02	<0.02	<0.020	<0.020	<0.02	<0.02	<0.050	<0.050	<0.0050	<0.0050	<0.050	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Zinc	**0.024**	<0.020	<0.020	<0.020	<0.020	**0.04**	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Inorganics/Wet Chemistry (mg/L)																								
Ammonia Nitrogen	**0.38**	**0.41**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Biological Oxygen Demand	<5	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand	<10	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	<0.02	<0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	**0.021**	**0.022**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil & Grease	<5	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Surfactants (MBAs)	**0.10**	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Cyanide	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Total Kjeldahl Nitrogen	**0.64**	**0.73**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Phenols	<0.010	<0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Phosphorus	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids	<5	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Total metals and inorganic/wet chemistry parameters reported in milligrams per liter (mg/L).
PW = Public well.
< = Not detected above the reporting limit provided.
(J) = estimated.
Bold = Analyte detected above the laboratory reporting limit.
NA = Not analyzed.

Table D-5
Recovery Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT	Date Sampled:	RECOVERY WELL RW-1 (Aboveground Storage Tank Area)														PRG
		8/27/1996	11/6/1996	6/11/1997	11/18/1997	4/21/1998	11/1/2001	10/25/2002	12/22/2003	10/22/2004	10/11/2005	10/20/2006	10/17/2007	10/17/2008	10/19/2009	(µg/L)
VOCs (µg/L)																
Acetone		NA	NA	NA	NA	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene		ND	ND	ND	ND	ND	ND	ND	<1.0	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane		ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)		NA	NA	NA	NA	NA	NA	ND	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene		ND	NA	NA	NA	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide		NA	NA	NA	NA	ND	ND	ND	<1.0	<20.0	< 20	< 20	< 20	< 20	< 20	**768**
Chloroethane		ND	**2.4**	**2.2**	**3.7**	ND	ND	ND	<5.0	**2.4**	< 2	< 2	< 2	11.3	**4.7**	--
Chloroform		ND	ND	ND	ND	ND	ND	ND	<1.0	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane		ND	NA	NA	NA	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane		**170**	**180**	**110**	**190**	**140**	**103**	**11**	**74**	**100**	**26**	**53**	**28**	**34**	**75**	**973**
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene		ND	ND	ND	ND	ND	ND	ND	<1.0	*<1.0*	*< 1*	*< 1*	**1.3**	**<1**	*< 1*	**0.0167**
cis-1,2-Dichloroethene		**240**	**180**	**190**	**230**	**200**	**119**	**1,100**	**85**	**84**	**22**	**42**	**524**	**54**	**51**	**70**
trans-1,2-Dichloroethene		ND	**1.4**	**1.4**	**2.9**	ND	**1.3**	**13**	<1.0	<1.0	< 1	< 1	**8.5**	**1.9**	< 1	**100**
1,2-Dichloroethene, Total		**240**	**181**	**191**	**233**	**200**	**120**	**1,113**	**85**	**84**	**22**	**42**	**533**	**55**	**51**	(170)
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)		NA	NA	NA	NA	ND	ND	ND	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane		**22**	**23**	**20**	**31**	**19**	**13**	**13**	**15**	**17**	**7**	**9**	**12**	**< 1**	**14**	**200**
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	<1.0	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene		ND	ND	ND	ND	ND	**2.4**	**240**	**9.2**	**4.3**	**13**	**2.6**	**87**	**25**	**3.3**	**2.54**
1,2,4-Trimethylbenzene		NA	NA	NA	NA	ND	ND	ND	<1.0	NA	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride		**170**	ND	**100**	**140**	**80**	**55**	**60**	**40**	**38**	**9.1**	**16**	**74**	**14**	**20**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 2	**828**

Notes:

Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
-- = No PRG assigned.
< = Not detected above the reporting limit provided.
No data was collected during the October 1998 sampling event.
October 2002 data validated to Level IV; no flags were required for the data in this table collected on that date.
2003 and subsequent data were validated to Level II.

ND = Not detected above the method detection limit.
NA = Not analyzed.
Bold = Analyte detected above laboratory reporting limit.
Italics = Reporting limit above the corresponding PRG.
Shaded = Analyte detected above the corresponding PRG.

Table D-5
Recovery Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT	Date Sampled:	RECOVERY WELL RW-2 (Aboveground Storage Tank Area)								PRG
		8/27/1996	11/6/1996	6/11/1997	11/18/1997	4/21/1998	11/1/2001	10/25/2002	10/19/2009	(µg/L)
VOCs (µg/L)										
Acetone		NA	NA	NA	NA	ND	ND	ND	< 20	**3,650**
Benzene		ND	ND	ND	ND	ND	ND	ND	< *1*	**0.617**
Bromomethane		ND	ND	ND	ND	ND	ND	ND	< 2	--
2-Butanone (MEK)		NA	NA	NA	NA	NA	NA	ND	< 20	--
n-Butylbenzene		ND	NA	NA	NA	ND	ND	ND	< 1	--
Carbon Disulfide		NA	NA	NA	NA	ND	ND	ND	< 20	**768**
Chloroethane		ND	**2.6**	**2.2**	ND	ND	ND	ND	< 2	--
Chloroform		ND	ND	ND	ND	ND	ND	ND	< *1*	**0.274**
Dibromomethane		ND	NA	NA	NA	ND	ND	ND	< 1	--
1,1-Dichloroethane		**8.1**	**160**	**110**	**21**	**52**	**18.2**	**19**	**12**	**973**
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	< 1	--
1,1-Dichloroethene		ND	ND	ND	ND	ND	ND	ND	< *1*	**0.0167**
cis-1,2-Dichloroethene		**6.6**	**150**	**180**	**53**	**78**	**45**	**55**	**32**	**70**
trans-1,2-Dichloroethene		ND	**1.6**	**1.4**	ND	ND	**1.7**	ND	**1.5**	**100**
1,2-Dichloroethene, Total		**6.6**	**151.6**	**181.4**	**53**	**78**	**46.7**	**55**	**34**	(170)
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	< 1	**1.25**
Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	< 1	**700**
4-Methyl-2-pentanone (MIBK)		NA	NA	NA	NA	ND	ND	ND	< 20	**487**
Tetrachloroethene		ND	ND	ND	ND	ND	ND	ND	< 1	**1.43**
Toluene		ND	ND	ND	ND	ND	ND	ND	< 1	**1,000**
1,1,1-Trichloroethane		ND	**23.0**	**20.0**	ND	**6.1**	**4.4**	ND	**14**	**200**
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	< *1*	**0.314**
Trichloroethene		ND	ND	ND	ND	ND	**1.2**	ND	< 1	**2.54**
1,2,4-Trimethylbenzene		NA	NA	NA	NA	ND	ND	ND	< 5	--
Vinyl Chloride		**7.7**	**150**	**97**	**19**	**34**	**5.3**	**10**	**1.8**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	ND	< 2	**828**

Notes:

Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L)
ND = Not detected above the method detection limit
NA = Not analyzed.
No data was collected during the October 1998 sampling event
October 2002 data was validated to Level IV; no flags were required for the data in this table collected on that date
2003 and subsequent data were validated to Level II

Bold = Analyte detected above laboratory reporting limit
Shaded = Analyte detected above the corresponding PRG
-- = No PRG assigned.

Table D-5
Recovery Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT	Date Sampled:	RECOVERY WELL RW-3 (Aboveground Storage Tank Area)															PRG
		8/27/1996	11/6/1996	6/12/1997	11/18/1997	4/21/1998	8/18/1999	10/19/1999	11/1/2001	12/22/2003	10/22/2004	10/11/2005	10/20/2006	10/17/2007	10/17/2008	10/19/2009	(µg/L)
VOCs (µg/L)																	
Acetone		NA	NA	NA	NA	ND	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene		ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)		NA	NA	NA	NA	NA	ND	NA	NA	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene		ND	NA	NA	NA	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide		NA	NA	NA	NA	ND	ND	ND	ND	<1.0	<20.0	< 20	< 20	< 20	< 20	< 20	**768**
Chloroethane		ND	NA	ND	ND	ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 2	< 2	--
Chloroform		ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane		ND	NA	NA	NA	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane		ND	**3.1**	**2.7**	**4.9**	ND	ND	ND	**9.4**	**3.6**	**3.2**	**3.7**	**2.8**	**2.7**	**3**	**3**	**973**
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene		ND	ND	ND	**1.9**	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene		**390**	**330**	**270**	**690**	**340**	**150**	**200**	**349**	**183**	**170**	**260**	**88**	**288**	**140**	**75**	**70**
trans-1,2-Dichloroethene		**10**	**5.9**	**6.9**	**15**	**11**	ND	**5.1**	**8.6**	**7.1**	**5.0**	**6.4**	**4.6**	**8.6**	**4.5**	**2.1**	**100**
1,2-Dichloroethene, Total		**400**	**336**	**277**	**705**	**351**	**150**	**205**	**358**	**190**	**175**	**266**	**93**	**297**	**145**	**78**	(170)
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)		NA	NA	NA	NA	ND	ND	ND	ND	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene		ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene		ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane		ND	ND	ND	**1.7**	ND	ND	ND	**4.4**	**4.9**	**5.3**	**10**	**9.2**	**10.1**	< 1	**3.1**	**200**
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene		**150**	**130**	**120**	**240**	**330**	**96**	**140**	**99**	**106**	**92**	**88**	**45**	**96**	**66**	**68**	**2.54**
1,2,4-Trimethylbenzene		NA	NA	NA	NA	ND	ND	ND	ND	<1.0	NA	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride		**43**	**40**	**28**	**50**	**3.5**	**11**	**15**	**30**	**31**	**9.7**	**12**	**4.2**	**8.3**	**8.4**	**6.5**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**828**

Notes:

Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
-- = No PRG assigned.
< = Not detected above the reporting limit provided.
No data was collected during the October 1998 sampling event.
2003 and subsequent data were validated to Level II.

ND = Not detected above the method detection limit.
NA = Not analyzed.
Bold = Analyte detected above laboratory reporting limit.
Italics = Reporting limit above the corresponding PRG.
Shaded = Analyte detected above the corresponding PRG.

Table D-5
Recovery Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT	Date Sampled:	RECOVERY WELL RW-4 (Monitoring Wells MW-4S and MW-7S Area)														PRG
		8/27/1996	11/6/1996	6/12/1997	11/18/1997	4/21/1998	11/2/2001	4/23/2002	12/22/2003	10/22/2004	10/11/2005	10/20/2006	10/17/2007	10/17/2008	10/19/2009	(µg/L)
VOCs (µg/L)																
Acetone		NA	NA	NA	NA	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene		ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane		ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)		NA	NA	NA	NA	NA	NA	NA	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene		ND	NA	NA	NA	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide		NA	NA	NA	NA	ND	ND	ND	<1.0	<20.0	< 20	< 20	< 20	< 20	< 20	**768**
Chloroethane		ND	NA	ND	ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 2	< 2	--
Chloroform		ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane		ND	NA	NA	NA	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane		ND	**2.9**	**1.5**	**2.6**	ND	**13.3**	**1.2**	**1.5**	**2.7**	**1.7**	**1.7**	< 1	< 1	< 1	**973**
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene		ND	ND	ND	ND	ND	2.3	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene		**430**	**450**	**290**	**390**	**180**	**1,580**	**147**	**165**	**330**	**200**	**180**	**164**	**178**	**128**	**70**
trans-1,2-Dichloroethene		**27**	**26**	**18**	**24**	**12**	**23**	**16**	**14**	**25**	**16**	**16**	**15**	**16**	**13**	**100**
1,2-Dichloroethene, Total		**457**	**476**	**308**	**414**	**192**	**1,603**	**163**	**179**	**355**	**216**	**196**	**179**	**194**	**141**	(170)
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)		NA	NA	NA	NA	ND	ND	ND	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene		ND	ND	ND	ND	ND	**258**	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**2.54**
1,2,4-Trimethylbenzene		NA	NA	NA	NA	ND	ND	ND	<1.0	NA	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride		ND	ND	ND	ND	ND	**142**	ND	*<1.0*	**2.9**	*< 1*	*< 1*	*< 1*	**2**	**2.1**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	**828**

Notes:

Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
-- = No PRG assigned.
< = Not detected above the reporting limit provided.
No data was collected during the October 1998 sampling event.
2003 and subsequent data were validated to Level II.

ND = Not detected above the method detection limit.
NA = Not analyzed.
Bold = Analyte detected above laboratory reporting limit.
Italics = Reporting limit above the corresponding PRG.
Shaded = Analyte detected above the corresponding PRG.

Table D-5
Recovery Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT	Date Sampled:	RECOVERY WELL RW-5 (Southeast of the Landfill)															PRG
		8/27/1996	11/6/1996	6/12/1997	11/18/1997	4/21/1998	11/2/2001	4/23/2002	10/25/2002	12/22/2003	10/22/2004	10/11/2005	10/20/2006	10/17/2007	10/17/2008	10/19/2009	(µg/L)
VOCs (µg/L)																	
Acetone		NA	NA	NA	NA	ND	ND	ND	ND	<100	<20.0	< 100	< 100	< 20	< 20	< 20	**3,650**
Benzene		ND	ND	ND	ND	ND	**4.0**	**3.8**	**5.6**	*<5.0*	**3.6**	*< 5*	**2.5**	**1**	*< 1*	*< 1*	**0.617**
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 10	< 10	< 1	< 1	< 1	--
2-Butanone (MEK)		NA	NA	NA	NA	NA	NA	NA	NA	<62	<20.0	< 100	< 100	< 20	< 20	< 20	--
n-Butylbenzene		ND	NA	NA	NA	ND	ND	ND	ND	<5.0	<1.0	< 5	< 5	< 1	< 1	< 1	--
Carbon Disulfide		NA	NA	NA	NA	ND	ND	ND	ND	<5.0	<20.0	< 100	< 100	< 20	< 20	< 20	**768**
Chloroethane		ND	NA	ND	ND	ND	ND	ND	ND	<25	<2.0	< 10	< 10	< 2	< 2	< 2	--
Chloroform		ND	ND	ND	ND	ND	ND	ND	ND	*<5.0*	*<1.0*	*< 5*	*< 5*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane		ND	NA	NA	NA	ND	ND	ND	ND	<5.0	<1.0	< 5	< 5	< 1	< 1	< 1	--
1,1-Dichloroethane		ND	ND	**1.1**	**4.0**	ND	**7.1**	**4.7**	**5.7**	<5.0	**4.7**	< 5	**3.1**	**1.3**	**3**	**4.3**	**973**
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<1.0	< 5	< 5	< 1	< 1	< 1	--
1,1-Dichloroethene		ND	ND	ND	ND	ND	**2.9**	**2.2**	**5.2**	*<5.0*	**2.8**	*< 5*	**1.8**	**3.1**	**1.5**	*1.5*	**0.0167**
cis-1,2-Dichloroethene		**330**	**330**	**910**	**1,900**	**4,000**	**5,310**	**3,520**	**5,500**	**2,810**	**3,600**	**2,200**	**2,000**	**2,180**	**1,600 J**	**1,130**	**70**
trans-1,2-Dichloroethene		**20**	**26**	**53**	**140**	**260**	**211**	**143**	**96**	**102**	**63**	**21**	**48**	**44**	**11**	**13**	**100**
1,2-Dichloroethene, Total		**350**	**356**	**963**	**2,040**	**4,260**	**5,521**	**3,663**	**5,596**	**2,912**	**3,663**	**2,221**	**2,048**	**2,224**	**1,600**	**1,143**	(170)
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	ND	*<5.0*	<1.0	*< 5*	*< 5*	< 1	< 1	< 1	**1.25**
Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<1.0	< 5	< 5	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)		NA	NA	NA	NA	ND	ND	ND	ND	<62	<20	< 100	< 100	< 20	< 20	< 20	**487**
Tetrachloroethene		ND	ND	ND	ND	ND	ND	ND	ND	*<5.0*	<1.0	*< 5*	*< 5*	< 1	< 1	< 1	**1.43**
Toluene		ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<1.0	< 5	< 5	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane		ND	ND	ND	ND	ND	**4.0**	**3.1**	ND	<5.0	**1.2**	< 5	**1.4**	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	*<5.0*	*<1.0*	*< 5*	*< 5*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene		ND	**1.8**	ND	**15**	**130**	**348**	**219**	**55**	**175**	**50 (J)**	**17**	**140**	**54**	**14**	**26**	**2.54**
1,2,4-Trimethylbenzene		NA	NA	NA	NA	ND	ND	ND	ND	<5.0	NA	< 25	< 25	< 5	< 5	< 5	--
Vinyl Chloride		**100**	**200**	**520**	**1,600**	**1,100**	**393**	**436**	**600**	**335**	**520**	**360**	**200**	**415**	**357 J**	**264**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<1.0	< 5	< 5	< 2	< 2	< 2	**828**

Notes:

Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L).
-- = No PRG assigned.
< = Not detected above the reporting limit provided.
October 2002 data validated to Level IV; no flags were required for the data in this table collected on that date.
2003 and subsequent data were validated to Level II.
(J) = estimated.

No data was collected during the October 1998 sampling event.
ND = Not detected above the method detection limit.
NA = Not analyzed.
Bold = Analyte detected above laboratory reporting limit.
Italics = Reporting limit above the corresponding PRG.
Shaded = Analyte detected above the corresponding PRG.

Table D-5
Recovery Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT	Date Sampled:	RECOVERY WELL RW-6 (Southeast Area)							PRG
		8/27/1996	11/6/1996	6/12/1997	11/18/97	4/21/1998	11/2/2001	10/19/2009	(µg/L)
VOCs (µg/L)									
Acetone		NA	NA	NA	NA	ND	ND	< 20	**3,650**
Benzene		ND	ND	ND	ND	ND	ND	< *1*	**0.617**
Bromomethane		ND	ND	ND	ND	ND	ND	< 2	--
2-Butanone (MEK)		NA	NA	NA	NA	NA	NA	< 20	--
n-Butylbenzene		ND	NA	NA	NA	ND	ND	< 1	--
Carbon Disulfide		NA	NA	NA	NA	ND	ND	< 20	**768**
Chloroethane		ND	NA	**7.5**	ND	ND	ND	< 2	--
Chloroform		ND	ND	ND	ND	ND	ND	< *1*	**0.274**
Dibromomethane		ND	NA	NA	NA	ND	ND	< 1	--
1,1-Dichloroethane		ND	ND	**21**	ND	ND	ND	**10**	**973**
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	< 1	--
1,1-Dichloroethene		ND	ND	**3.6**	ND	ND	ND	< *1*	**0.0167**
cis-1,2-Dichloroethene		ND	ND	**4,500**	**1.0**	**5.7**	**43**	**1,060**	**70**
trans-1,2-Dichloroethene		ND	ND	**53**	ND	ND	ND	**12**	**100**
1,2-Dichloroethene, Total		ND	ND	**4,553**	**1.0**	**5.7**	**43**	**1,072**	(170)
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	< 1	**1.25**
Ethylbenzene		ND	ND	ND	ND	ND	ND	< 1	**700**
4-Methyl-2-pentanone (MIBK)		NA	NA	NA	NA	ND	ND	< 20	**487**
Tetrachloroethene		ND	ND	ND	ND	ND	ND	< 1	**1.43**
Toluene		ND	ND	ND	ND	ND	ND	< 1	**1,000**
1,1,1-Trichloroethane		ND	ND	**3.1**	ND	ND	ND	< 1	**200**
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	< *1*	**0.314**
Trichloroethene		ND	ND	**240**	ND	ND	ND	**171**	**2.54**
1,2,4-Trimethylbenzene		NA	NA	NA	NA	ND	ND	< 5	--
Vinyl Chloride		ND	ND	**780**	**1.1**	ND	**112**	**4.3**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	< 1	**828**

Notes:

Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L)

ND = Not detected above the method detection limit

NA = Not analyzed.

No data was collected during the October 1998 sampling event

2003 and subsequent data were validated to Level II.

Bold = Analyte detected above laboratory reporting limit

Shaded = Analyte detected above the corresponding PRG

-- = No PRG assigned.

Table D-5
Recovery Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT	Date Sampled:	RECOVERY WELL RW-7 (Southeast Area)							PRG
		8/27/1996	11/6/1996	6/12/1997	11/18/1997	4/21/1998	11/2/2001	10/19/2009	(µg/L)
VOCs (µg/L)									
Acetone		NA	NA	NA	NA	ND	ND	< 20	**3,650**
Benzene		ND	ND	ND	ND	ND	ND	*< 1*	**0.617**
Bromomethane		ND	ND	ND	ND	ND	ND	< 2	--
2-Butanone (MEK)		NA	NA	NA	NA	NA	NA	< 20	--
n-Butylbenzene		ND	NA	NA	NA	ND	ND	< 1	--
Carbon Disulfide		NA	NA	NA	NA	ND	ND	< 20	**768**
Chloroethane		ND	NA	ND	ND	ND	ND	< 2	--
Chloroform		ND	ND	ND	ND	ND	ND	*< 1*	**0.274**
Dibromomethane		ND	NA	NA	NA	ND	ND	< 1	--
1,1-Dichloroethane		ND	ND	ND	ND	ND	**1.7**	< 1	**973**
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	< 1	--
1,1-Dichloroethene		ND	ND	ND	ND	ND	**1.1**	*< 1*	**0.0167**
cis-1,2-Dichloroethene		**2.4**	**910**	**100**	**520**	ND	**653**	**285**	**70**
trans-1,2-Dichloroethene		ND	**43**	**2.2**	**12**	ND	**7.1**	**6**	**100**
1,2-Dichloroethene, Total		**2.4**	**953**	**102**	**532**	ND	**660**	**291**	(170)
1,2-Dichloropropane		ND	**7.4**	ND	**2.4**	ND	ND	< 1	**1.25**
Ethylbenzene		ND	ND	ND	ND	ND	ND	< 1	**700**
4-Methyl-2-pentanone (MIBK)		NA	NA	NA	NA	ND	ND	< 20	**487**
Tetrachloroethene		ND	**1.0**	ND	ND	ND	ND	< 1	**1.43**
Toluene		ND	ND	ND	ND	ND	ND	< 1	**1,000**
1,1,1-Trichloroethane		ND	ND	ND	ND	ND	ND	< 1	**200**
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	*< 1*	**0.314**
Trichloroethene		**1.7**	**290**	**26**	**140**	**43**	**101**	**168**	**2.54**
1,2,4-Trimethylbenzene		NA	NA	NA	NA	ND	ND	< 5	--
Vinyl Chloride		ND	ND	ND	**7.9**	**3.3**	**174**	**35**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	< 1	**828**

Notes:

Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L)

ND = Not detected above the method detection limit

NA = Not analyzed.

No data was collected during the October 1998 sampling event

2003 and subsequent data were validated to Level II.

Bold = Analyte detected above laboratory reporting limit

Shaded = Analyte detected above the corresponding PRG

-- = No PRG assigned.

Table D-5
Recovery Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT	Date Sampled:	RECOVERY WELL RW-8 (Southeast Area)							PRG
		8/27/1996	11/6/1996	6/12/1997	11/18/1997	4/21/1998	11/2/2001	10/19/2009	(µg/L)
VOCs (µg/L)									
Acetone		NA	NA	NA	NA	ND	ND	< 20	**3,650**
Benzene		ND	ND	ND	ND	ND	ND	*< 1*	**0.617**
Bromomethane		ND	ND	ND	ND	ND	ND	< 2	--
2-Butanone (MEK)		NA	NA	NA	NA	NA	NA	< 20	--
n-Butylbenzene		ND	NA	NA	NA	ND	ND	< 1	--
Carbon Disulfide		NA	NA	NA	NA	ND	ND	< 20	**768**
Chloroethane		ND	NA	**3.6**	**2.1**	ND	ND	< 2	--
Chloroform		ND	ND	ND	ND	ND	ND	*< 1*	**0.274**
Dibromomethane		ND	NA	NA	NA	ND	ND	< 1	--
1,1-Dichloroethane		ND	**11**	**19**	**29**	ND	**110**	**46**	**973**
1,2-Dichloroethane		ND	**1,400**	ND	ND	ND	ND	< 1	--
1,1-Dichloroethene		ND	**3.1**	**5.6**	**5.8**	ND	**30.6**	**7.9**	**0.0167**
cis-1,2-Dichloroethene		**3,000**	**1,434**	**2,800**	**4,700**	**5,500**	**18,500**	**3,190**	**70**
trans-1,2-Dichloroethene		**66**	ND	**42**	**44**	ND	**144**	**48**	**100**
1,2-Dichloroethene, Total		**3,066**	**1,434**	**2,842**	**4,744**	**5,500**	**18,644**	**3,238**	(170)
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	< 1	**1.25**
Ethylbenzene		ND	ND	ND	ND	ND	ND	< 1	**700**
4-Methyl-2-pentanone (MIBK)		NA	NA	NA	NA	ND	ND	< 20	**487**
Tetrachloroethene		ND	ND	ND	ND	ND	ND	< 1	**1.43**
Toluene		ND	ND	ND	ND	ND	ND	< 1	**1,000**
1,1,1-Trichloroethane		ND	ND	ND	ND	ND	ND	< 1	**200**
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	*< 1*	**0.314**
Trichloroethene		**140**	**98**	**160**	**180**	**270**	**5,250**	**818**	**2.54**
1,2,4-Trimethylbenzene		NA	NA	NA	NA	ND	ND	< 5	--
Vinyl Chloride		**650**	**130**	**310**	**160**	ND	**802**	**282**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	< 1	**828**

Notes:

Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L)

ND = Not detected above the method detection limit

NA = Not analyzed.

No data was collected during the October 1998 sampling event

2003 and subsequent data were validated to Level II.

Bold = Analyte detected above laboratory reporting limit

Shaded = Analyte detected above the corresponding PRG

-- = No PRG assigned.

Table 9
Recovery Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT	Date Sampled:	RECOVERY WELL RW-9 (Southeast Area)							PRG
		8/27/1996	11/6/1996	6/12/1997	11/18/1997	4/21/1998	11/2/2001	10/19/2009	(µg/L)
VOCs (µg/L)									
Acetone		NA	NA	NA	NA	ND	ND	< 20	**3,650**
Benzene		ND	ND	ND	ND	ND	ND	< *1*	**0.617**
Bromomethane		ND	ND	ND	ND	ND	ND	< 2	--
2-Butanone (MEK)		NA	NA	NA	NA	NA	NA	< 20	--
n-Butylbenzene		ND	NA	NA	NA	ND	ND	< 1	--
Carbon Disulfide		NA	NA	NA	NA	ND	ND	< 20	**768**
Chloroethane		ND	NA	**3.3**	ND	ND	ND	< 2	--
Chloroform		ND	ND	ND	ND	ND	ND	< *1*	**0.274**
Dibromomethane		ND	NA	NA	NA	ND	ND	< 1	--
1,1-Dichloroethane		**1.3**	**3.3**	**1.2**	**1.9**	ND	**3.0**	< 1	**973**
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	< 1	--
1,1-Dichloroethene		ND	**3.1**	**5.7**	**4.4**	ND	**6.3**	**5.0**	**0.0167**
cis-1,2-Dichloroethene		**340**	**2,100**	**2,700**	**3,000**	**5,300**	**3,880**	**1,640**	**70**
trans-1,2-Dichloroethene		**3**	**19**	**32**	**17**	**61**	**32.6**	**16**	**100**
1,2-Dichloroethene, Total		**343**	**2,119**	**2,732**	**3,017**	**5,361**	**3,913**	**1,656**	(170)
1,2-Dichloropropane		ND	ND	ND	ND	ND	**1.8**	< 1	**1.25**
Ethylbenzene		ND	ND	ND	ND	ND	ND	< 1	**700**
4-Methyl-2-pentanone (MIBK)		NA	NA	NA	NA	ND	ND	< 20	**487**
Tetrachloroethene		ND	ND	**3.1**	ND	ND	ND	**2.6**	**1.43**
Toluene		ND	ND	ND	ND	ND	ND	< 1	**1,000**
1,1,1-Trichloroethane		ND	ND	ND	ND	ND	ND	< 1	**200**
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	< *1*	**0.314**
Trichloroethene		**23**	**230**	**480**	**300**	**510**	**565**	**370**	**2.54**
1,2,4-Trimethylbenzene		NA	NA	NA	NA	ND	ND	< 5	--
Vinyl Chloride		**5.1**	**220**	**410**	**400**	ND	**306**	**169**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	< 1	**828**

Notes:

Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L)

ND = Not detected above the method detection limit

NA = Not analyzed.

No data was collected during the October 1998 sampling event

2003 and subsequent data were validated to Level II.

Bold = Analyte detected above laboratory reporting limit

Shaded = Analyte detected above the corresponding PRG

-- = No PRG assigned.

Table D-5
Recovery Well Analytical Results
Wayne Reclamation & Recycling

CONSTITUENT	Date Sampled:	RECOVERY WELL RW-10 (Southeast Area)							PRG
		8/27/1996	11/6/1996	6/12/1997	11/18/1997	4/21/1998	11/2/2001	10/19/2009	(µg/L)
VOCs (µg/L)									
Acetone		NA	NA	NA	NA	ND	ND	< 20	**3,650**
Benzene		ND	ND	ND	ND	ND	**7**	< *1*	**0.617**
Bromomethane		**2**	ND	ND	ND	ND	ND	< 2	--
2-Butanone (MEK)		NA	NA	NA	NA	NA	NA	< 20	--
n-Butylbenzene		ND	NA	NA	NA	ND	ND	< 1	--
Carbon Disulfide		NA	NA	NA	NA	ND	ND	< 20	**768**
Chloroethane		**10**	NA	NA	**17**	ND	**17**	< 2	--
Chloroform		ND	ND	ND	ND	ND	ND	< *1*	**0.274**
Dibromomethane		ND	NA	NA	NA	ND	ND	< 1	--
1,1-Dichloroethane		**68**	**8**	**55**	**71**	**74**	**82**	**31**	**973**
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	< 1	--
1,1-Dichloroethene		**5**	ND	**7**	**8**	ND	**7**	**6.7**	**0.0167**
cis-1,2-Dichloroethene		**6,100**	**1,100**	**8,600**	**48,000**	**11,000**	**11,000**	**3,080**	**70**
trans-1,2-Dichloroethene		**89**	**28**	**58**	**77**	**84**	**89**	**44**	**100**
1,2-Dichloroethene, Total		**6,189**	**1,128**	**8,658**	**48,077**	**11,084**	**11,089**	**3,124**	(170)
1,2-Dichloropropane		ND	ND	ND	**1**	ND	**2**	< 1	**1.25**
Ethylbenzene		ND	ND	ND	ND	ND	ND	< 1	**700**
4-Methyl-2-pentanone (MIBK)		NA	NA	NA	NA	ND	ND	< 20	**487**
Tetrachloroethene		**1**	ND	**1**	ND	ND	ND	< 1	**1.43**
Toluene		ND	ND	ND	ND	ND	ND	< 1	**1,000**
1,1,1-Trichloroethane		ND	ND	ND	ND	ND	ND	< 1	**200**
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	< *1*	**0.314**
Trichloroethene		**420**	**53**	**500**	**440**	**640**	**308**	**289**	**2.54**
1,2,4-Trimethylbenzene		NA	NA	NA	NA	ND	ND	< 5	--
Vinyl Chloride		**1,400**	**290**	**1,900**	**1,200**	**1,400**	**548**	**277**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	< 1	**828**

Notes:

Volatile organic compounds (VOCs) and Preliminary Remediation Goals (PRGs) reported in micrograms per liter (µg/L)

ND = Not detected above the method detection limit

NA = Not analyzed.

No data was collected during the October 1998 sampling event

2003 and subsequent data were validated to Level II.

Bold = Analyte detected above laboratory reporting limit

Shaded = Analyte detected above the corresponding PRG

-- = No PRG assigned.

Table D-6
Volatile Organic Compound Removal Rates - Soil Vapor Extraction and Air Stripper Systems
Wayne Reclamation & Recycling

		SE Area SVE System [1]			AST Area - SVE Branch Line G [2]			AST Area - SVE Branch Line H [3]			Air Stripper [4]			Sum of VOCs Removed
DATE	CONSTITUENT	Air Flow Rate[5] (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Air Flow Rate (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Air Flow Rate (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Groundwater Flow Rate (gpm)	IN minus EFF Conc. (µg/L)	Removal Rate (lbs/day)	(lbs/day)
April 1998	Trichloroethene	1,350	540	0.35	140	57	0.00	160	100	0.01	30	140	0.05	0.41
April 1998	cis-1,2-DCE	1,350	1,000	0.53	140	110	0.01	160	200	0.01	30	1,190	0.43	0.98
April 1998	Vinyl Chloride	1,350	0	0.00	140	7	0.00	160	0	0.00	30	240	0.09	0.09
	Total			0.88			0.01			0.02			0.57	**1.48**
October 1998	Trichloroethene	2,575	2,900	3.60	140	48	0.00	160	300	0.02	56	83	0.06	3.69
October 1998	cis-1,2-DCE	2,575	3,500	3.54	140	50	0.00	160	250	0.02	56	254	0.17	3.73
October 1998	Vinyl Chloride	2,575	0	0.00	140	0	0.00	160	0	0.00	56	110	0.07	0.07
	Total			7.14			0.01			0.04			0.30	**7.49**
April 1999	Trichloroethene	2,730	94	0.12	98	8	0.00	112	21	0.00	71	254	0.22	0.34
April 1999	cis-1,2-DCE	2,730	210	0.23	98	21	0.00	112	47	0.00	71	1,560	1.33	1.56
April 1999	Vinyl Chloride	2,730	15	0.01	98	2	0.00	112	2	0.00	71	210	0.18	0.19
	Total			0.36			0.00			0.00			1.73	**2.09**
Nov/Dec 1999	Trichloroethene	2,590	540	0.68	187	9	0.00	213	23	0.00	47	120	0.07	0.75
Nov/Dec 1999	cis-1,2-DCE	2,590	1,300	1.32	187	24	0.00	213	89	0.01	47	888	0.50	1.83
Nov/Dec 1999	Vinyl Chloride	2,590	29	0.02	187	4	0.00	213	0	0.00	47	120	0.07	0.09
	Total			2.01			0.00			0.01			0.64	**2.66**

Notes:

[1] Volatile organic compound (VOC) removal rate based on air flow rate and VOC concentrations measured in combined Southeast (SE) Area soil vapor extraction (SVE) line with air sparging off.

[2] VOC removal rate based on air flow rate and VOC concentrations measured in Aboveground Storage Tank (AST) Area Branch Line G.

[3] VOC removal rate based on air flow rate and VOC concentrations measured in AST Area Branch Line H.

[4] VOC removal rate based on groundwater flow rate and difference between groundwater influent and effluent concentrations.

[5] SE Area air flow rate based on sum of the six branch line field measurements.

IN = Influent; EFF = effluent; Conc. = concentration; scfm = standard cubic feet per minute; ppb = parts per billion; µg/L = micrograms per liter; lbs = pounds; gpm = gallons per minute; DCE = dichloroethene.

Table D-6
Volatile Organic Compound Removal Rates - Soil Vapor Extraction and Air Stripper Systems
Wayne Reclamation & Recycling

		SE Area SVE System [1]			AST Area - SVE Branch Line G [2]			AST Area - SVE Branch Line H [3]			Air Stripper [4]			Sum of VOCs Removed
DATE	CONSTITUENT	Air Flow Rate[5] (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Air Flow Rate (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Air Flow Rate (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Groundwater Flow Rate (gpm)	IN minus EFF Conc. (µg/L)	Removal Rate (lbs/day)	(lbs/day)
April 2000	Trichloroethene	1,500	710	0.51	187	590	0.05	213	50	0.01	51	250	0.15	0.73
April 2000	cis-1,2-DCE	1,500	1,400	0.82	187	330	0.02	213	150	0.01	51	1,450	0.89	1.75
April 2000	Vinyl Chloride	1,500	0	0.00	187	0	0.00	213	0	0.00	51	170	0.10	0.10
	Total			1.34			0.08			0.02			1.15	**2.58**
October 2000	Trichloroethene	1,500	750	0.54	187	710	0.06	213	78	0.01	55	120	0.08	0.69
October 2000	cis-1,2-DCE	1,500	1,300	0.77	187	300	0.02	213	190	0.02	55	1,580	1.04	1.85
October 2000	Vinyl Chloride	1,500	0	0.00	187	0	0.00	213	0	0.00	55	170	0.11	0.11
	Total			1.31			0.09			0.02			1.24	**2.65**
April 2001	Trichloroethene	1,600	140	0.11	105	57	0.00	120	48	0.00	65	190	0.15	0.26
April 2001	cis-1,2-DCE	1,600	150	0.09	105	21	0.00	120	70	0.00	65	1,230	0.96	1.06
April 2001	Vinyl Chloride	1,600	0	0.00	105	0	0.00	120	0	0.00	65	146	0.11	0.11
	Total			0.20			0.00			0.01			1.22	**1.44**
Oct/Nov 2001	Trichloroethene	1,600	410	0.32	225	150	0.02	225	0	0.00	90	241	0.26	0.59
Oct/Nov 2001	cis-1,2-DCE	1,600	1,500	0.94	225	130	0.01	225	0	0.00	90	1,447	1.56	2.52
Oct/Nov 2001	Vinyl Chloride	1,600	0	0.00	225	3	0.00	225	0	0.00	90	121	0.13	0.13
	Total			1.26			0.03			0.00			1.96	**3.24**

Notes:

[1] Volatile organic compound (VOC) removal rate based on air flow rate and VOC concentrations measured in combined Southeast (SE) Area soil vapor extraction (SVE) line with air sparging off.

[2] VOC removal rate based on air flow rate and VOC concentrations measured in Aboveground Storage Tank (AST) Area Branch Line G.

[3] VOC removal rate based on air flow rate and VOC concentrations measured in AST Area Branch Line H.

[4] VOC removal rate based on groundwater flow rate and difference between groundwater influent and effluent concentrations.

[5] SE Area air flow rate based on sum of the six branch line field measurements.

IN = Influent; EFF = effluent; Conc. = concentration; scfm = standard cubic feet per minute; ppb = parts per billion; µg/L = micrograms per liter; lbs = pounds; gpm = gallons per minute; DCE = dichloroethene.

Table D-6
Volatile Organic Compound Removal Rates - Soil Vapor Extraction and Air Stripper Systems
Wayne Reclamation & Recycling

		SE Area SVE System [1]			AST Area - SVE Branch Line G [2]			AST Area - SVE Branch Line H [3]			Air Stripper [4]			Sum of VOCs Removed
DATE	CONSTITUENT	Air Flow Rate[5] (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Air Flow Rate (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Air Flow Rate (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Groundwater Flow Rate (gpm)	IN minus EFF Conc. (µg/L)	Removal Rate (lbs/day)	(lbs/day)
April 2002	Trichloroethene	2,600	330	0.41	245	22	0.00	245	48	0.01	65	74	0.06	0.48
April 2002	cis-1,2-DCE	2,600	370	0.38	245	27	0.00	245	60	0.01	65	692	0.54	0.93
April 2002	Vinyl Chloride	2,600	18	0.01	245	0.92	0.00	245	2.1	0.00	65	160	0.12	0.14
	Total			0.80			0.01			0.01			0.72	**1.54**
October 2002	Trichloroethene	1,200	430	0.25	280	180	0.02	(susp)	0	0.00	44	300	0.16	0.43
October 2002	cis-1,2-DCE	1,200	790	0.37	280	0	0.00	(susp)	0	0.00	44	1,359	0.72	1.09
October 2002	Vinyl Chloride	1,200	0	0.00	280	0	0.00	(susp)	0	0.00	44	220	0.12	0.12
	Total			0.62			0.02			0.00			0.99	**1.64**
April 2003	Trichloroethene	1,300	270	0.17	640	280	0.09	(susp)	0	0.00	50	268	0.16	0.42
April 2003	cis-1,2-DCE	1,300	470	0.24	640	190	0.05	(susp)	0	0.00	50	1,405	0.84	1.13
April 2003	Vinyl Chloride	1,300	0	0.00	640	0	0.00	(susp)	0	0.00	50	134	0.08	0.08
	Total			0.41			0.13			0.00			1.09	**1.63**
October 2003	Trichloroethene	2,100	240	0.24	420	260	0.05	(susp)	0	0.00	44	180	0.10	0.39
October 2003	cis-1,2-DCE	2,100	340	0.28	420	0	0.00	(susp)	0	0.00	44	1,694	0.90	1.18
October 2003	Vinyl Chloride	2,100	0	0.00	420	0	0.00	(susp)	0	0.00	44	140.7	0.07	0.07
	Total			0.52			0.05			0.00			1.07	**1.64**

Notes:

[1] Volatile organic compound (VOC) removal rate based on air flow rate and VOC concentrations measured in combined Southeast (SE) Area soil vapor extraction (SVE) line with air sparging off.

[2] VOC removal rate based on air flow rate and VOC concentrations measured in Aboveground Storage Tank (AST) Area Branch Line G.

[3] VOC removal rate based on air flow rate and VOC concentrations measured in AST Area Branch Line H.

[4] VOC removal rate based on groundwater flow rate and difference between groundwater influent and effluent concentrations.

[5] SE Area air flow rate based on sum of the six branch line field measurements.

IN = Influent; EFF = effluent; Conc. = concentration; scfm = standard cubic feet per minute; ppb = parts per billion; µg/L = micrograms per liter; lbs = pounds; gpm = gallons per minute; DCE = dichloroethene.

(susp) = The operation of Branch Line H was suspended in October 2002.

Table D-6
Volatile Organic Compound Removal Rates - Soil Vapor Extraction and Air Stripper Systems
Wayne Reclamation & Recycling

		SE Area SVE System [1]			AST Area - SVE Branch Line G [2]			AST Area - SVE Branch Line H [3]			Air Stripper [4]			Sum of VOCs Removed
DATE	CONSTITUENT	Air Flow Rate[5] (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Air Flow Rate (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Air Flow Rate (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Groundwater Flow Rate (gpm)	IN minus EFF Conc. (µg/L)	Removal Rate (lbs/day)	(lbs/day)
April 2004	Trichloroethene	1,000	0	0.00	470	360	0.08	(susp)	0	0.00	67	149	0.12	0.20
April 2004	cis-1,2-DCE	1,000	160	0.06	470	160	0.03	(susp)	0	0.00	67	690	0.56	0.65
April 2004	Vinyl Chloride	1,000	0	0.00	470	0	0.00	(susp)	0	0.00	67	147.9	0.12	0.12
	Total			0.06			0.11			0.00			0.79	**0.97**
October 2004	Trichloroethene	900	180	0.07	470	350	0.08	(susp)	0	0.00	48	336	0.19	0.34
October 2004	cis-1,2-DCE	900	330	0.09	470	170	0.02	(susp)	0	0.00	48	772	0.45	0.56
October 2004	Vinyl Chloride	900	0	0.00	470	18.4	0.00	(susp)	0	0.00	48	260	0.15	0.15
	Total			0.16			0.11			0.00			0.79	**1.05**
April 2005	Trichloroethene	860	323	0.11	280	105	0.01	(susp)	0	0.00	74	251	0.22	0.35
April 2005	cis-1,2-DCE	860	742	0.19	280	64.6	0.01	(susp)	0	0.00	74	1,670	1.48	1.68
April 2005	Vinyl Chloride	860	0	0.00	280	0	0.00	(susp)	0	0.00	74	210	0.19	0.19
	Total			0.31			0.02			0.00			1.89	**2.22**
October 2005	Trichloroethene	560	230	0.05	218	260	0.03	(susp)	0	0.00	113	205	0.28	0.36
October 2005	cis-1,2-DCE	560	400	0.07	218	290	0.02	(susp)	0	0.00	113	1,711	2.32	2.41
October 2005	Vinyl Chloride	560	0	0.00	218	0	0.00	(susp)	0	0.00	113	168.7	0.23	0.23
	Total			0.12			0.05			0.00			2.83	**3.00**

Notes:

[1] Volatile organic compound (VOC) removal rate based on air flow rate and VOC concentrations measured in combined Southeast (SE) Area soil vapor extraction (SVE) line with air sparging off.

[2] VOC removal rate based on air flow rate and VOC concentrations measured in Aboveground Storage Tank (AST) Area Branch Line G.

[3] VOC removal rate based on air flow rate and VOC concentrations measured in AST Area Branch Line H.

[4] VOC removal rate based on groundwater flow rate and difference between groundwater influent and effluent concentrations.

[5] SE Area air flow rate based on sum of the six branch line field measurements.

IN = Influent; EFF = effluent; Conc. = concentration; scfm = standard cubic feet per minute; ppb = parts per billion; µg/L = micrograms per liter; lbs = pounds; gpm = gallons per minute; DCE = dichloroethene.

(susp) = The operation of Branch Line H was suspended in October 2002.

The soil vapor extraction (SVE) and air sparge (AS) systems were temporarily shut down on November 13, 2005 for assessment of the vadose zone and was restarted in April 2006.

Table D-6
Volatile Organic Compound Removal Rates - Soil Vapor Extraction and Air Stripper Systems
Wayne Reclamation & Recycling

		SE Area SVE System [1]			AST Area - SVE Branch Line G [2]			AST Area - SVE Branch Line H [3]			Air Stripper [4]			Sum of VOCs Removed
DATE	CONSTITUENT	Air Flow Rate[5] (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Air Flow Rate (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Air Flow Rate (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Groundwater Flow Rate (gpm)	IN minus EFF Conc. (µg/L)	Removal Rate (lbs/day)	(lbs/day)
April 2006	Trichloroethene	1,020	309	0.13	213	197	0.02	(susp)	0	0.00	93	157	0.18	0.33
April 2006	cis-1,2-DCE	1,020	458	0.14	213	805	0.05	(susp)	0	0.00	93	928	1.04	1.23
April 2006	Vinyl Chloride	1,020	0	0.00	213	0	0.00	(susp)	0	0.00	93	110	0.12	0.12
	Total			0.27			0.07			0.00			1.34	**1.68**
October 2006	Trichloroethene	873	376	0.14	312	380	0.06	(susp)	0	0.00	77	335	0.31	0.50
October 2006	cis-1,2-DCE	873	570	0.15	312	222	0.02	(susp)	0	0.00	77	1,718	1.59	1.76
October 2006	Vinyl Chloride	873	0	0.00	312	0	0.00	(susp)	0	0.00	77	140	0.13	0.13
	Total			0.29			0.08			0.00			2.03	**2.39**
April 2007	Trichloroethene	(susp)	0	0.00	750	28	0.01	(susp)	0	0.00	85	129	0.13	0.14
April 2007	cis-1,2-DCE	(susp)	0	0.00	750	11	0.00	(susp)	0	0.00	85	894	0.91	0.92
April 2007	Vinyl Chloride	(susp)	0	0.00	750	0	0.00	(susp)	0	0.00	85	123	0.13	0.13
	Total			0.00			0.01			0.00			1.17	**1.18**
October 2007	Trichloroethene	(susp)	0	0.00	690	52	0.02	(susp)	0	0.00	55	84	0.06	0.07
October 2007	cis-1,2-DCE	(susp)	0	0.00	690	33	0.01	(susp)	0	0.00	55	537	0.35	0.36
October 2007	Vinyl Chloride	(susp)	0	0.00	690	0	0.00	(susp)	0	0.00	55	117	0.08	0.08
	Total			0.00			0.02			0.00			0.49	**0.51**

Notes:

[1] Volatile organic compound (VOC) removal rate based on air flow rate and VOC concentrations measured in combined Southeast (SE) Area soil vapor extraction (SVE) line with air sparging off.

[2] VOC removal rate based on air flow rate and VOC concentrations measured in Aboveground Storage Tank (AST) Area Branch Line G.

[3] VOC removal rate based on air flow rate and VOC concentrations measured in AST Area Branch Line H.

[4] VOC removal rate based on groundwater flow rate and difference between groundwater influent and effluent concentrations.

[5] SE Area air flow rate based on sum of the six branch line field measurements.

IN = Influent; EFF = effluent; Conc. = concentration; scfm = standard cubic feet per minute; ppb = parts per billion; µg/L = micrograms per liter; lbs = pounds; gpm = gallons per minute; DCE = dichloroethene.

(susp) = The operation of Branch Line H was suspended in October 2002.

The soil vapor extraction (SVE) and air sparge (AS) systems were temporarily shut down on November 13, 2005 for assessment of the vadose zone and was restarted in April 2006.

The AS system was suspended in November 2006.

Table D-6
Volatile Organic Compound Removal Rates - Soil Vapor Extraction and Air Stripper Systems
Wayne Reclamation & Recycling

		SE Area SVE System [1]			AST Area - SVE Branch Line G [2]			AST Area - SVE Branch Line H [3]			Air Stripper [4]			Sum of VOCs Removed
DATE	CONSTITUENT	Air Flow Rate[5] (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Air Flow Rate (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Air Flow Rate (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Groundwater Flow Rate (gpm)	IN minus EFF Conc. (µg/L)	Removal Rate (lbs/day)	(lbs/day)
April 2008	Trichloroethene	(susp)	0	0.00	700	0	0.00	(susp)	0	0.00	32	45	0.02	0.02
April 2008	cis-1,2-DCE	(susp)	0	0.00	700	0	0.00	(susp)	0	0.00	32	354	0.14	0.14
April 2008	Vinyl Chloride	(susp)	0	0.00	700	0	0.00	(susp)	0	0.00	32	98	0.04	0.04
	Total			0.00			0.00			0.00			0.19	**0.19**
October 2008	Trichloroethene	(susp)	0	0.00	718	559	0.19	(susp)	0	0.00	57	214	0.15	0.34
October 2008	cis-1,2-DCE	(susp)	0	0.00	718	362	0.13	(susp)	0	0.00	57	1,126	0.77	0.90
October 2008	Vinyl Chloride	(susp)	0	0.00	718	0	0.00	(susp)	0	0.00	57	185	0.13	0.13
	Total			0.00			0.32			0.00			1.04	**1.36**
April 2009	Trichloroethene	(susp)	0	0.00	870	9.5	0.00	(susp)	0	0.00	63	82	0.06	0.07
April 2009	cis-1,2-DCE	(susp)	0	0.00	870	13	0.01	(susp)	0	0.00	63	356	0.27	0.27
April 2009	Vinyl Chloride	(susp)	0	0.00	870	1	0.00	(susp)	0	0.00	63	74	0.06	0.06
	Total			0.00			0.01			0.00			0.39	**0.40**
October 2009	Trichloroethene	(susp)	0	0.00	1240	99	0.06	(susp)	0	0.00	55	187	0.12	0.18
October 2009	cis-1,2-DCE	(susp)	0	0.00	1240	37	0.01	(susp)	0	0.00	55	900	0.59	0.61
October 2009	Vinyl Chloride	(susp)	0	0.00	1240	0	0.00	(susp)	0	0.00	55	92	0.06	0.06
	Total			0.00			0.07			0.00			0.78	**0.85**

Notes:

[1] Volatile organic compound (VOC) removal rate based on air flow rate and VOC concentrations measured in combined Southeast (SE) Area soil vapor extraction (SVE) line with air sparging off.
[2] VOC removal rate based on air flow rate and VOC concentrations measured in Aboveground Storage Tank (AST) Area Branch Line G.
[3] VOC removal rate based on air flow rate and VOC concentrations measured in AST Area Branch Line H.
[4] VOC removal rate based on groundwater flow rate and difference between groundwater influent and effluent concentrations.
[5] SE Area air flow rate based on sum of the six branch line field measurements.
IN = Influent; EFF = effluent; Conc. = concentration; scfm = standard cubic feet per minute; ppb = parts per billion; µg/L = micrograms per liter; lbs = pounds; gpm = gallons per minute; DCE = dichloroethene.
(susp) = The operation of Branch Line H was suspended in October 2002.
The AS system was suspended in November 2006.
The average flow rate is used for the AST - SVE Branch Line calculation.

Table D-6
Volatile Organic Compound Removal Rates - Soil Vapor Extraction and Air Stripper Systems
Wayne Reclamation & Recycling

		SE Area SVE System [1]			AST Area - SVE Branch Line G [2]			AST Area - SVE Branch Line H [3]			Air Stripper [4]			Sum of VOCs Removed
DATE	**CONSTITUENT**	Air Flow Rate[5] (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Air Flow Rate (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Air Flow Rate (scfm)	Conc. (ppb)	Removal Rate (lbs/day)	Groundwater Flow Rate (gpm)	IN minus EFF Conc. (µg/L)	Removal Rate (lbs/day)	(lbs/day)
April 2010	Trichloroethene	(susp)	0	0.00	700	0	0.00	(susp)	0	0.00	32	45	0.02	0.02
April 2010	cis-1,2-DCE	(susp)	0	0.00	700	0	0.00	(susp)	0	0.00	32	354	0.14	0.14
April 2010	Vinyl Chloride	(susp)	0	0.00	700	0	0.00	(susp)	0	0.00	32	98	0.04	0.04
	Total			0.00			0.00			0.00			0.19	**0.19**

Notes:

[1] Volatile organic compound (VOC) removal rate based on air flow rate and VOC concentrations measured in combined Southeast (SE) Area soil vapor extraction (SVE) line with air sparging off.

[2] VOC removal rate based on air flow rate and VOC concentrations measured in Aboveground Storage Tank (AST) Area Branch Line G.

[3] VOC removal rate based on air flow rate and VOC concentrations measured in AST Area Branch Line H.

[4] VOC removal rate based on groundwater flow rate and difference between groundwater influent and effluent concentrations.

[5] SE Area air flow rate based on sum of the six branch line field measurements.

IN = Influent; EFF = effluent; Conc. = concentration; scfm = standard cubic feet per minute; ppb = parts per billion; µg/L = micrograms per liter; lbs = pounds; gpm = gallons per minute; DCE = dichloroethene.

(susp) = The operation of Branch Line H was suspended in October 2002.

The AS system was suspended in November 2006.

The average flow rate is used for the AST - SVE Branch Line calculation.

Table D-7
Summary of Groundwater Treatment System Effluent Sampling - Metals, Inorganics, and Polychlorinated Biphenyls
Wayne Reclamation Recycling

CONSTITUENT / Date Sampled:	11/18/1997	12/18/1997	1/30/1998	10/13/1998	10/13/1999	10/6/2000	10/31/2001	10/24/2002	10/16/2003	10/21/2004	10/13/2005	10/19/2006	10/18/2007	10/14/2008	10/14/2009
Total Metals (mg/L)															
Arsenic	**0.015**	**0.0044**	**0.005**	<0.005	<0.005	<0.028	<0.0050	<0.0050	**0.0130**	<0.0100	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Beryllium	<0.0050	<0.0050	<0.0050	<0.003	<0.003	<0.003	<0.0010	<0.0010	<0.0010	<0.00400	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	<0.0050	<0.0050	<0.0050	<0.005	<0.010	<0.005	<0.0010	<0.0010	<0.0010	<0.00500	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chromium	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0020	<0.0020	<0.0020	<0.0100	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Copper	**0.032**	<0.020	**1.9**	<0.010	<0.005	<0.005	<0.0050	<0.0050	**0.0170**	<0.0200	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Lead	<0.10	<0.10	<0.10	<0.005	<0.005	<0.005	<0.0010	<0.0010	<0.0010	<0.0100	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Mercury	<0.00020	<0.00020	<0.00020	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0002	<0.00200	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Molybdenum	<0.20	<0.20	<0.20	<0.020	<0.020	<0.020	**0.0061**	**0.0084**	**0.0064**	<0.0500	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nickel	<0.050	<0.020	<0.020	<0.020	<0.020	<0.005	**0.0091**	**0.0078**	**0.0110**	<0.0500	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Potassium	**12.0**	**12.0**	**9.5**	**11.0**	**9.0**	**9.0**	**8.6**	**10.7**	**10.8**	**10.4**	**9.1**	**11.6**	**8.3**	**9.3**	**8.5**
Selenium	<0.0020	<0.0020	<0.0020	<0.005	<0.005	<0.036	<0.0050	<0.0050	<0.0050	<0.0100	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Silver	<0.010	<0.010	<0.010	<0.020	<0.001	<0.005	<0.0005	<0.0005	<0.0005	<0.0500	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Zinc	**0.054**	<0.020	<0.020	<0.020	<0.020	<0.020	<0.050	<0.050	**0.226**	<0.0500	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Inorganics/Wet Chemistry (mg/L)															
Ammonia Nitrogen	**0.72**	**0.15**	**0.28**	**1.00**	**0.80**	**1.10**	**1.20**	**1.8**	**2.6**	**1.45**	**1.17**	**1.91**	**0.62**	**1.5**	**1.0**
Biological Oxygen Demand	<2.0	<2.0	<2.0	<5	**6**	**8**	<5	**9.4**	<5	<5	**12**	**<5**	NA	NA	**9.46**
Chemical Oxygen Demand	**23**	**18**	**21**	<10	<10	**16**	**72**	**24**	**17**	<10.0	**26.9**	**26.3**	**22.2**	**16.5**	**38.4**
Nitrate/Nitrite Nitrogen	**0.32**	**0.33**	**0.44**	**0.036**	**0.04**	**0.033**	**0.23**	**0.033**	**0.20**	<0.500	< 0.5	< 0.5	**0.10**	< 0.1	< 0.1
Oil & Grease	<5	<5	<5	<5	**6**	**6**	<5	<5	<5	<5	< 5	< 5	<5	<5	<5
pH	**8.3**	**8.27**	**7.65**	NA	**7.2**	**7.2**	NA	**8.06**	**7.87**	**8.14**	**8.14**	**8.23**	**8.26**	**8.26**	**8.26**
Surfactants (MBAs)	Negative	Negative	Negative	**Positive**	**Positive**	Negative	**0.13**	**0.16**	<0.10	**0.701**	< 0.2	< 0.2	<0.2	<0.2	<0.1
Total Cyanide	<0.005	<0.005	<0.0050	<0.005	<0.005	<0.020	<0.005	<0.005	<0.005 (J)	<0.00500	< 0.005	< 0.005	<0.005	<0.005	<0.005
Total Kjeldahl Nitrogen	**47**	**1.21**	**0.98**	**1.6**	**1.09**	**1.5**	**1.6**	**2.1**	**2.7**	**2.08**	< 2	**2.67**	**1.3**	**2.5 J**	**1.8**
Total Phenols	<0.01	<0.01	**0.17**	<0.010	<0.010	<0.005	0.0093	0.0084	<0.010	<0.100	< 0.05	< 0.05	<0.02	**0.03**	<0.02
Total Phosphorus	**0.93**	**0.75**	**0.96**	<0.05	**0.48**	<0.15	<0.15	<0.15	<0.05	<0.0500	< 0.05	< 0.05	<0.05	<0.05 J	**0.13**
Total Solids	**1,100**	**820**	**850**	**830**	**790**	**820**	**850**	**800**	**960**	**940**	**734**	**828**	**688**	**628**	**614**
Total Suspended Solids	**11**	**14**	**19**	**27**	<5	**5**	**9**	<5	**6**	**34.5**	< 5	**7.3**	**5**	**6**	<5
PCBs (µg/L)															
Aroclor 1016	<0.2	<0.2	<0.2	<1.0	<0.7	<1.0	<0.21	<0.21	<0.20	<0.51	< 0.5	< 0.5	< 0.5	< 0.55	< 0.51
Aroclor 1221	<0.2	<0.2	<0.2	<1.0	<0.7	<1.0	<0.21	<0.21	<0.20	<0.51	< 0.5	< 0.5	< 0.5	< 0.55	< 0.51
Aroclor 1232	<0.4	<0.4	<0.4	<1.0	<0.7	<1.0	<0.21	<0.21	<0.20	<0.51	< 0.5	< 0.5	< 0.5	< 0.55	< 0.51
Aroclor 1242	<0.2	<0.2	<0.2	<1.0	<0.7	<1.0	<0.21	<0.21	<0.20	<0.51	< 0.5	< 0.5	< 0.5	< 0.55	< 0.51
Aroclor 1248	<0.2	<0.2	<0.2	<1.0	<0.7	<1.0	<0.21	<0.21	<0.20	<0.51	< 0.5	< 0.5	< 0.5	< 0.55	< 0.51
Aroclor 1254	<0.2	<0.2	<0.2	<1.0	<0.7	<1.0	<0.21	<0.21	<0.20	<0.51	< 0.5	< 0.5	< 0.5	< 0.55	< 0.51
Aroclor 1260	<0.2	<0.2	<0.2	<1.0	<0.7	<1.0	<0.21	<0.21	<0.20	<0.51	< 0.5	< 0.5	< 0.5	< 0.55	< 0.51

Notes:

Total metals and inorganic/wet chemistry parameters reported in milligrams per liter (mg/L).
Polychlorinated biphenyls (PCBs) are reported in micrograms per liter (µg/L).
Bold = Analyte detected above laboratory reporting limit.
< = Not detected above the reporting limit provided.
NA = Not analyzed.

Table D-8
Summary of Treatment System Air Sampling
Wayne Reclamation & Recycling

Date Sampled	4/23/1999		5/17/1999		6/24/1999	
CONSTITUENT (ppb[v/v])	**IN**	**EFF**	**IN**	**EFF**	**IN**	**EFF**
1,1-Dichloroethane	**26**	**25**	**29**	**13**	**45**	**9**
1,1-Dichloroethene	<14	<13	<18	<12	<17	**6**
cis-1,2-Dichloroethene	**1,600**	**1,500**	**2,200**	**1,000**	**2,300**	**390**
trans-1,2-Dichloroethene	**50**	**58**	**52**	**36**	**140**	**35**
Tetrachloroethene	<14	**17**	**110**	**52**	**46**	**6**
Toluene	**20**	<13	<18	<12	<17	**3**
1,1,1-Trichloroethane	**36**	**36**	**83**	**25**	**43**	**8**
Trichloroethene	**220**	**300**	**570**	**240**	**860**	**120**
Vinyl Chloride	**360**	**280**	**220**	**120**	**240**	**35**
Cumulative Risk (1)	**7.52E-07**	**5.93E-07**	**4.98E-07**	**2.67E-07**	**1.08E-07**	**1.53E-08**

Date Sampled	7/13/1999	8/6/1999	9/1/1999	10/14/1999	11/23/1999	12/13/1999
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	**45**	**45**	**60**	**61**	**32**	**32**
1,1-Dichloroethene	<7.8	<9.2	**4**	<9.2	<14	<12
cis-1,2-Dichloroethene	**2,200**	<9.2	**1,600**	**3,300**	**1,400**	**1,500**
trans-1,2-Dichloroethene	**100**	**140**	**120**	**260**	**76**	**95**
Tetrachloroethene	**51**	**27**	**25**	**63**	**16**	**38**
Toluene	<7.8	<9.2	<2.3	<9.2	<14	<12
1,1,1-Trichloroethane	**180**	**44**	**200**	**99**	**97**	**66**
Trichloroethene	**440**	**810**	**390**	**1,700**	**390**	**520**
Vinyl Chloride	**340**	**270**	**220**	**180**	**200**	**200**
Cumulative Risk (1)	**1.10E-07**	**1.09E-07**	**7.53E-08**	**1.41E-07**	**6.93E-08**	**7.96E-08**

Notes:

(1) Cumulative Risk calculation is indicated on Table 14.

Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

IN = Influent; EFF = effluent sample; < = not detected above the reporting limit provided.

Bold = Analyte detected above the laboratory reporting limit.

Air treatment system was discontinued on June 24, 1999. Air is now discharged directly to the atmosphere.

Table D-8
Summary of Treatment System Air Sampling
Wayne Reclamation & Recycling

Date Sampled	1/3/2000	2/7/2000	3/15/2000	4/25/2000	5/24/2000	6/6/2000
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	**29**	**17**	**25**	**31**	**30**	**27**
1,1-Dichloroethene	<18	<8.3	<9.0	<3.1	<12	**2**
cis-1,2-Dichloroethene	**1,100**	**740**	**1,200**	**2,300**	**1,000**	**1,800**
trans-1,2-Dichloroethene	**68**	**55**	**46**	**83**	**71**	**85**
Tetrachloroethene	**57**	<8.3	**88**	<21	**110**	**30**
Toluene	<18	<8.3	<9.0	<3.1	<12	<2.0
1,1,1-Trichloroethane	**110**	**29**	**89**	**47**	**150**	**110**
Trichloroethene	**440**	**220**	**400**	**300**	**440**	**380**
Vinyl Chloride	**94**	**91**	**61**	**260**	**130**	**190**
Cumulative Risk (1)	**5.38E-08**	**3.39E-08**	**4.88E-08**	**7.92E-08**	**7.03E-08**	**6.86E-08**

Date Sampled	7/25/2000	8/4/2000	9/5/2000	10/6/2000	11/7/2000	12/21/2000
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	**21**	**30**	**34**	**49**	**36**	**30**
1,1-Dichloroethene	<9.7	<12	<12	<18	<10	<9.3
cis-1,2-Dichloroethene	**1,400**	**2,200**	**2,100**	**2,200**	**1,900**	**1,900**
trans-1,2-Dichloroethene	**39**	**100**	**140**	**160**	**97**	**100**
Tetrachloroethene	**31**	**56**	**22**	**52**	**110**	**38**
Toluene	<9.7	<12	<12	<18	<10	<9.3
1,1,1-Trichloroethane	**80**	**59**	**80**	**93**	**73**	**50**
Trichloroethene	**290**	**840**	**540**	**920**	**840**	**760**
Vinyl Chloride	**190**	**230**	**210**	**130**	**170**	**190**
Cumulative Risk (1)	**6.40E-08**	**1.06E-07**	**8.04E-08**	**8.66E-08**	**1.01E-07**	**8.99E-08**

Notes:

(1) Cumulative Risk calculation is indicated on Table 14.

Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

< = Not detected above the reporting limit provided.

Bold = Analyte detected above the laboratory reporting limit.

Air treatment system was discontinued on June 24, 1999. Air is now discharged directly to the atmosphere.

Table D-8
Summary of Treatment System Air Sampling
Wayne Reclamation & Recycling

Date Sampled	1/30/2001	2/26/2001	3/21/2001	4/23/2001	5/21/2001	6/13/2001
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	**30**	<140	**18**	<140	<150	<150
1,1-Dichloroethene	<9.2	<140	**2.1**	<140	<150	<150
cis-1,2-Dichloroethene	**2,000**	**1,700**	**1,300**	**1,000**	**630**	**1,400**
trans-1,2-Dichloroethene	**49**	NA	NA	NA	NA	NA
Tetrachloroethene	**38**	<140	**34**	<140	<150	<150
Toluene	<9.2	<140	**4.0**	<140	<150	<150
1,1,1-Trichloroethane	**53**	<140	**26**	<140	<150	<150
Trichloroethene	**630**	**260**	**340**	**160**	<150	**430**
Vinyl Chloride	**270**	**180**	**190**	**160**	<150	**210**
Cumulative Risk (1)	**1.02E-07**	**7.71E-08**	**6.71E-08**	**6.72E-08**	**6.59E-08**	**9.46E-08**

Date Sampled	7/23/2001	8/23/2001	9/17/2001	10/31/2001	11/18/2001	12/28/2001
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	<140	<140	<140	<140	<100	<130
1,1-Dichloroethene	<140	<140	<140	<140	<100	<130
cis-1,2-Dichloroethene	**1,100**	**600**	**680**	**1,500**	**2,200**	**1,700**
trans-1,2-Dichloroethene	NA	NA	NA	<140	<100	NA
Tetrachloroethene	<140	<140	<140	<140	<100	<130
Toluene	<140	<140	<140	<140	<100	<130
1,1,1-Trichloroethane	<140	<140	<140	<140	<100	<130
Trichloroethene	**140**	**280**	**280**	**410**	**460**	**300**
Vinyl Chloride	<140	<140	<140	**260**	**210**	**210**
Cumulative Risk (1)	**6.16E-08**	**6.89E-08**	**6.89E-08**	**1.04E-07**	**8.84E-08**	**8.46E-08**

Notes:

(1) Cumulative Risk calculation is indicated on Table 14.

Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

< = Not detected above the reporting limit provided; NA = not analyzed.

Bold = Analyte detected above the laboratory reporting limit.

Air treatment system was discontinued on June 24, 1999. Air is now discharged directly to the atmosphere.

Table D-8
Summary of Treatment System Air Sampling
Wayne Reclamation & Recycling

Date Sampled	1/18/2002	2/7/2002	3/21/2002	4/23/2002	5/23/2002	6/18/2002
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	<130	<130	<140	**3.5**	<140	<140
1,1-Dichloroethene	<130	<130	<140	<0.69	<140	<140
cis-1,2-Dichloroethene	**1,600**	**2,800**	**900**	**37**	**800**	**1,200**
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	<130	<130	<140	**7.8**	<140	<140
Toluene	<130	<130	<140	<0.69	<140	<140
1,1,1-Trichloroethane	<130	<130	<140	**42**	<140	<140
Trichloroethene	**280**	**530**	**180**	**29**	**160**	**290**
Vinyl Chloride	**280**	**500**	**160**	**1.0**	**150**	**220**
Cumulative Risk (1)	**9.98E-08**	**1.64E-07**	**6.83E-08**	**2.97E-09**	**6.49E-08**	**8.80E-08**

Date Sampled	7/19/2002	8/14/2002	9/20/2002	10/24/2002	11/21/2002	12/13/2002
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	<140	<140	<100	<130	<140	<140
1,1-Dichloroethene	<140	<140	<100	<130	<140	<140
cis-1,2-Dichloroethene	**230**	**920**	**1,500**	**1,500**	**1,200**	**1,100**
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	<140	<140	<100	<130	<140	<140
Toluene	<140	<140	<100	<130	<140	<140
1,1,1-Trichloroethane	<140	<140	<100	<130	<140	<140
Trichloroethene	<140	**200**	**520**	**1,000**	**720**	**410**
Vinyl Chloride	<140	**220**	<100	<130	<140	<140
Cumulative Risk (1)	**6.16E-08**	**8.32E-08**	**6.61E-08**	**9.21E-08**	**9.21E-08**	**7.58E-08**

Notes:

(1) Cumulative Risk calculation is indicated on Table 14.

Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

< = Not detected above the reporting limit provided; NA = not analyzed.

Bold = Analyte detected above the laboratory reporting limit.

Air treatment system was discontinued on June 24, 1999. Air is now discharged directly to the atmosphere.

Table D-8
Summary of Treatment System Air Sampling
Wayne Reclamation & Recycling

Date Sampled	1/23/2003	2/10/2003	3/19/2003	4/15/2003	5/19/2003	6/6/2003
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	<140	<140	<130	<140	<130	<140
1,1-Dichloroethene	<140	<140	<130	<140	<130	<140
cis-1,2-Dichloroethene	**920**	**520**	**760**	**1,400**	**750**	**1,000**
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	<140	<140	<130	<140	<130	<140
Toluene	<140	<140	<130	<140	<130	<140
1,1,1-Trichloroethane	<140	<140	<130	<140	<130	<140
Trichloroethene	**420**	**320**	**320**	**380**	**280**	**390**
Vinyl Chloride	<140	<140	<130	<140	<130	<140
Cumulative Risk (1)	**7.63E-08**	**7.10E-08**	**6.71E-08**	**7.42E-08**	**6.50E-08**	**7.47E-08**

Date Sampled	7/14/2003	8/21/2003	9/15/2003	10/16/2003	11/7/2003	12/22/2003
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	<140	<140	**2.3**	< 130	< 130	< 130
1,1-Dichloroethene	<140	<140	<0.66	< 130	< 130	< 130
cis-1,2-Dichloroethene	**740**	**800**	**270**	**750**	**380**	**1,100**
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	<140	<140	**7.4**	< 130	< 130	< 130
Toluene	<140	<140	<0.66	< 130	< 130	< 130
1,1,1-Trichloroethane	<140	<140	**5.4**	< 130	< 130	< 130
Trichloroethene	**290**	**330**	**240**	**230**	**230**	**220**
Vinyl Chloride	<140	<140	**11**	< 130	< 130	**190**
Cumulative Risk (1)	**6.94E-08**	**7.15E-08**	**1.63E-08**	**6.24E-08**	**6.24E-08**	**7.58E-08**

Notes:

(1) Cumulative Risk calculation is indicated on Table 14.

Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

< = Not detected above the reporting limit provided; NA = not analyzed.

Bold = Analyte detected above the laboratory reporting limit.

Air treatment system was discontinued on June 24, 1999. Air is now discharged directly to the atmosphere.

Table D-8
Summary of Treatment System Air Sampling
Wayne Reclamation & Recycling

Date Sampled	1/29/2004	2/20/2004	3/16/2004	4/19/2004	5/18/2004	6/23/2004
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	<130	<120	<140	**18**	<150	**23**
1,1-Dichloroethene	<130	<120	<140	**3.1**	<150	**5.0**
cis-1,2-Dichloroethene	**350**	**1,200**	**540**	**2,300**	**510**	**1,800**
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	<130	<120	<140	**7.1**	<150	**12**
Toluene	<130	<120	<140	**2.1**	<150	**5.8**
1,1,1-Trichloroethane	<130	<120	<140	**4.8**	<150	**4.3**
Trichloroethene	<130	**300**	<140	**480**	<150	**260**
Vinyl Chloride	**150**	**220**	<140	**350**	<150	**300**
Cumulative Risk (1)	**6.18E-08**	**8.54E-08**	**6.16E-08**	**1.07E-07**	**6.59E-08**	**8.50E-08**

Date Sampled	7/30/2004	8/31/2004	9/22/2004	10/19/2004	11/22/2004	12/17/2004
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	<140	<130	<140	<150	<140	<140
1,1-Dichloroethene	<140	<130	<140	<150	<140	<140
cis-1,2-Dichloroethene	**1,300**	**1,000**	**620**	**820 (UB)**	**1,000**	**1,300**
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
Tetrachloroethene	<140	<130	<140	<150	<140	<140
Toluene	<140	<130	<140	<150	<140	<140
1,1,1-Trichloroethane	<140	<130	<140	<150	<140	<140
Trichloroethene	**250**	**180**	<140	**180**	**210**	**780**
Vinyl Chloride	**260**	**140**	<140	**180 (UB)**	**170**	<140
Cumulative Risk (1)	**9.51E-08**	**6.21E-08**	**6.16E-08**	**7.45E-08**	**7.22E-08**	**9.52E-08**

Notes:

(1) Cumulative Risk calculation is indicated on Table 14.

Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

< = Not detected above the reporting limit provided; NA = not analyzed.

Bold = Analyte detected above the laboratory reporting limit.

Air treatment system was discontinued on June 24, 1999. Air is now discharged directly to the atmosphere.

Table D-8
Summary of Treatment System Air Sampling
Wayne Reclamation & Recycling

Date Sampled	1/26/2005	2/18/2005	3/16/2005	4/19/2005	5/13/2005	6/03/2005
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	<140	<140	<140	**53.2**	**15.9**	**22**
1,1-Dichloroethene	<140	<140	<140	<13.2	**3**	**3**
cis-1,2-Dichloroethene	**700**	**750**	**620**	**4,330**	<0.71	**1,970**
trans-1,2-Dichloroethene	NA	NA	<140	<14.1	NA	<113
Tetrachloroethene	<140	<140	<140	**46.8**	**15**	**21.6**
Toluene	<140	<140	<140	<13.2	<0.71	**1.5**
1,1,1-Trichloroethane	<140	<140	<140	**15.6**	<0.64	**18.2**
Trichloroethene	<140	<140	<140	**718**	**35**	**522**
Vinyl Chloride	<140	<140	**180**	<13.8	<0.74	**274**
Cumulative Risk (1)	**6.16E-08**	**6.16E-08**	**7.08E-08**	**4.82E-08**	**4.35E-09**	**9.42E-08**

Date Sampled	7/15/2005	8/26/2005	9/29/2005	10/17/2005	11/03/2005	12/01/2005
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	< 140	< 140	**56**	< 140	< 0.69	**22.5**
1,1-Dichloroethene	< 140	< 140	< 13.8	< 140	< 0.69	< 14.8
cis-1,2-Dichloroethene	**920**	**2,400**	**7,160 J**	**1,300**	< 0.69	NA
trans-1,2-Dichloroethene	< 140	< 140	**185**	< 140	< 0.69	**19.4**
Tetrachloroethene	< 140	< 140	< 13.8	< 140	< 0.69	< 14.8
Toluene	< 140	< 140	< 13.8	< 140	< 0.69	< 14.8
1,1,1-Trichloroethane	< 140	< 140	**16**	< 140	< 0.69	< 14.8
Trichloroethene	**250**	**710**	< 13.8	**300**	< 0.69	**224**
Vinyl Chloride	< 140	**530**	< 13.8	< 140	< 0.69	**344**
Cumulative Risk (1)	**3.22E-07**	**1.15E-06**	**3.12E-08**	**3.25E-07**	**1.56E-09**	**7.20E-07**

Notes:

(1) Cumulative Risk calculation is indicated on Table 14.

Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

< = Not detected above the reporting limit provided; NA = not analyzed.

Bold = Analyte detected above the laboratory reporting limit.

Air treatment system was discontinued on June 24, 1999. Air is now discharged directly to the atmosphere.

Table D-8
Summary of Treatment System Air Sampling
Wayne Reclamation & Recycling

Date Sampled	1/09/2006	2/10/2006	3/15/2006	4/26/2006	5/23/2006	6/15/2006
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	**26**	**21**	**22**	<13.8	**23**	<13.8
1,1-Dichloroethene	<14.3	**5**	<13.8	<13.8	<11.8	<13.8
cis-1,2-Dichloroethene	**2,330**	**1,930**	**2,650**	**818**	**1,800**	**1160**
trans-1,2-Dichloroethene	**23**	**20**	**18**	**38**	**123**	**49**
Tetrachloroethene	<14.3	<3.4	<13.8	**35**	<11.8	**22.4**
Toluene	<14.3	<3.4	<13.8	<18.0	<11.8	<13.8
1,1,1-Trichloroethane	<14.3	<3.4	<13.8	<18.0	<11.8	**28**
Trichloroethene	**315**	**283**	**270**	**279**	**421**	**313**
Vinyl Chloride	**423**	**310**	**215**	**147**	**317**	**168**
Cumulative Risk (1)	**1.17E-07**	**8.72E-08**	**6.61E-08**	**5.41E-08**	**9.74E-08**	**5.88E-08**

Date Sampled	7/18/2006	8/10/2006	9/26/2006	10/20/2006	11/27/2006	12/11/2006
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	**31**	<13.8	**34**	**39**	**21**	**14**
1,1-Dichloroethene	<14.3	<13.8	<14.3	<19.8	<14.3	<13.8
cis-1,2-Dichloroethene	**1,550 J**	<13.8	**1,720 J**	**2,050 J**	**1,420 J**	**927 J**
trans-1,2-Dichloroethene	**59**	<13.8	**93**	**146**	**49**	**17**
Tetrachloroethene	**52**	<13.8	<14.3	**94**	**17**	<13.8
Toluene	<14.3	**36**	<14.3	<19.8	<14.3	<13.8
1,1,1-Trichloroethane	**15**	<13.8	<14.3	**31**	<14.3	<13.8
Trichloroethene	**378**	<13.8	**427**	**888 J**	**242**	**191**
Vinyl Chloride	**319**	<13.8	<14.3	**220**	**230**	**199**
Cumulative Risk (1)	**1.02E-07**	**6.07E-09**	**2.80E-08**	**1.12E-07**	**6.85E-08**	**5.83E-08**

Notes:

(1) Cumulative Risk calculation is indicated on Table 14.

Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

< = Not detected above the reporting limit provided; NA = not analyzed.

Bold = Analyte detected above the laboratory reporting limit.

Air treatment system was discontinued on June 24, 1999. Air is now discharged directly to the atmosphere.

Table D-8
Summary of Treatment System Air Sampling
Wayne Reclamation & Recycling

Date Sampled	1/04/2007	2/02/2007	3/13/2007	4/17/2007	5/07/2007	6/06/2007
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	**23**	<14.3	**15**	**17**	**36**	**30**
1,1-Dichloroethene	<14.3	<14.3	<13.8	<13.8	<14.3	<14.3
cis-1,2-Dichloroethene	**1,010**	**891**	**1,150**	**1,330**	**1,980**	**1,010**
trans-1,2-Dichloroethene	**20**	<14.3	**16**	**26**	**34**	**28**
Tetrachloroethene	<14.3	<14.3	<13.8	<13.8	<14.3	<14.3
Toluene	<14.3	<14.3	<13.8	<13.8	<14.3	<14.3
1,1,1-Trichloroethane	<14.3	<14.3	<13.8	<13.8	<14.3	<14.3
Trichloroethene	**162**	**141**	**196**	**217**	**419**	**464**
Vinyl Chloride	**197**	**246**	**285**	**334**	**602**	**487**
Cumulative Risk (1)	**5.63E-08**	**6.66E-08**	**7.84E-08**	**9.09E-08**	**1.64E-07**	**1.39E-07**

Date Sampled	7/16/2007	8/06/2007	9/06/2007	10/18/2007	11/05/2007	12/12/2007
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	**35**	**42**	**35**	<14.8	<14.3	<13.8
1,1-Dichloroethene	<14.3	<14.3	<13.8	<14.8	<14.3	<13.8
cis-1,2-Dichloroethene	**2,710**	**2,020**	**2,200**	**694**	**815**	**866**
trans-1,2-Dichloroethene	**35**	**38**	**33**	<14.8	**16**	**14**
Tetrachloroethene	**20**	**23**	**16**	**18**	<14.3	<13.8
Toluene	<14.3	<14.3	<13.8	<14.8	<14.3	<13.8
1,1,1-Trichloroethane	<14.3	<14.3	<13.8	<14.8	<14.3	<13.8
Trichloroethene	**642**	**641**	**512**	**277**	**217**	**191**
Vinyl Chloride	**533**	**411**	**454**	**174**	**203**	**176**
Cumulative Risk (1)	**1.60E-07**	**1.32E-07**	**1.35E-07**	**5.76E-08**	**6.06E-08**	**5.30E-08**

Notes:

(1) Cumulative Risk calculation is indicated on Table 14.

Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

< = Not detected above the reporting limit provided; NA = not analyzed.

Bold = Analyte detected above the laboratory reporting limit.

Air treatment system was discontinued on June 24, 1999. Air is now discharged directly to the atmosphere.

Table D-8
Summary of Treatment System Air Sampling
Wayne Reclamation & Recycling

Date Sampled	1/04/2008	2/12/2008	3/13/2008	4/14/2008	5/05/2008	6/03/2008
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	<13.8	<13.8	**16**	<14.3	**21**	**19**
1,1-Dichloroethene	<13.8	<13.8	<13.4	<14.3	<13.8	<14.3
cis-1,2-Dichloroethene	**1,090**	**979**	**1,210**	**463**	**1,370**	**1,460**
trans-1,2-Dichloroethene	<13.8	**20**	**17**	<14.3	**22**	**23**
Tetrachloroethene	<13.8	<13.8	<13.4	<14.3	<13.8	<14.3
Toluene	<13.8	<13.8	<13.4	<14.3	<13.8	<14.3
1,1,1-Trichloroethane	<13.8	<13.8	<13.4	<14.3	<13.8	<14.3
Trichloroethene	**226**	**233**	**304**	**45**	**323**	**328**
Vinyl Chloride	**206**	<13.8	**216**	**145**	<13.8	**272**
Cumulative Risk (1)	**6.17E-08**	**1.76E-08**	**6.81E-08**	**3.82E-08**	**2.23E-08**	**8.24E-08**

Date Sampled	7/09/2008	8/11/2008	9/20/2008	10/17/2008	11/24/2008	12/10/2008
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	<229	**25**	**26**	**28**	<221	**32**
1,1-Dichloroethene	<229	<14.3	<14.3	<14.3	<221	<13.4
cis-1,2-Dichloroethene	**2,810**	**1,490**	**1,910**	**5,010**	**3,680**	**1,700**
trans-1,2-Dichloroethene	<229	**23**	**24**	**28**	<221	**29**
Tetrachloroethene	<229	**18**	<14.3	<14.3	<221	**182**
Toluene	<229	<14.3	<14.3	<14.3	<221	<13.4
1,1,1-Trichloroethane	<229	<14.3	<14.3	<14.3	<221	<13.4
Trichloroethene	**679**	**372**	**321**	**330**	**828**	**335**
Vinyl Chloride	**763**	**389**	**404**	**497**	**759**	**401**
Cumulative Risk (1)	**2.48E-07**	**1.12E-07**	**1.13E-07**	**1.35E-07**	**2.54E-07**	**1.39E-07**

Notes:

(1) Cumulative Risk calculation is indicated on Table 14.

Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

< = Not detected above the reporting limit provided; NA = not analyzed.

Bold = Analyte detected above the laboratory reporting limit.

Air treatment system was discontinued on June 24, 1999. Air is now discharged directly to the atmosphere.

Table D-8
Summary of Treatment System Air Sampling
Wayne Reclamation & Recycling

Date Sampled	1/23/2009	2/09/2009	3/30/2009	4/20/2009	5/13/2009	6/10/2009
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	**22**	<14.3	**21**	<13.4	**12**	<14.3
1,1-Dichloroethene	<13.4	<14.3	<13.8	<13.4	<13.8	<14.3
cis-1,2-Dichloroethene	**2,340**	**1,060**	**1,350**	**868**	**1,230**	**898**
trans-1,2-Dichloroethene	**23**	<14.3	**22**	**16**	**16**	<14.3
Tetrachloroethene	<13.4	<14.3	<13.8	<13.4	<13.8	<14.3
Toluene	<13.4	<14.3	<13.8	<13.4	<13.8	<14.3
1,1,1-Trichloroethane	<13.4	<14.3	<13.8	<13.4	<13.8	<14.3
Trichloroethene	**367**	**185**	**288**	**155**	**192**	**201**
Vinyl Chloride	**390**	**298**	**295**	**223**	**230**	**221**
Cumulative Risk (1)	**1.12E-07**	**8.09E-08**	**8.56E-08**	**6.18E-08**	**6.55E-08**	**6.39E-08**

	7/09/2009	8/25/2009	9/25/2009	10/15/2009	11/13/2009	12/15/2009
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	**13**	<14.3	**6**	**12**	<13.8	**16**
1,1-Dichloroethene	**3**	<14.3	<0.69	**1.5**	<13.8	<14.8
cis-1,2-Dichloroethene	**1,290**	**495**	**401**	**903**	**412**	**912**
trans-1,2-Dichloroethene	**16**	<14.3	**7**	**12**	<13.8	<14.8
Tetrachloroethene	**10**	<14.3	**13**	**13**	<13.8	<14.8
Toluene	<0.72	**16**	**6.5**	**5**	<13.8	<14.8
1,1,1-Trichloroethane	**3**	<14.3	**3.6**	**3.5**	<13.8	<14.8
Trichloroethene	**323**	**116**	**158**	**237**	**108**	**201**
Vinyl Chloride	**302**	**136**	**107**	**167**	**83**	**199**
Cumulative Risk (1)	**8.84E-08**	**3.98E-08**	**3.51E-08**	**5.31E-08**	**2.71E-08**	**5.90E-08**

Notes:

(1) Cumulative Risk calculation is indicated on Table 9.

Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

< = Not detected above the reporting limit provided; NA = not analyzed.

Bold = Analyte detected above the laboratory reporting limit.

Air treatment system was discontinued on June 24, 1999. Air is now discharged directly to the atmosphere.

Table D-8
Summary of Treatment System Air Sampling
Wayne Reclamation & Recycling

Date Sampled	1/25/2010	2/17/2010	3/09/2010	4/16/2010	5/10/2010	6/25/2010
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	<14.3	**19**	<58.9	**24**	**16**	<14.3
1,1-Dichloroethene	<14.3	<13.8	<57.8	<13.4	<13.8	<14.3
cis-1,2-Dichloroethene	**1,060**	**4,680**	**1,550**	**2,510**	**2,690**	**893**
trans-1,2-Dichloroethene	<14.3	**18**	<57.8	**34**	**26**	**21**
Tetrachloroethene	<14.3	<13.8	<98.7	<13.4	<13.8	<14.3
Toluene	<14.3	<13.8	<54.9	<13.4	<13.8	<14.3
1,1,1-Trichloroethane	<14.3	<13.8	<79.2	<13.4	<13.8	<14.3
Trichloroethene	**145**	**246**	**300**	**639**	**1,020**	**401**
Vinyl Chloride	**281**	**289**	**261**	**373**	**267**	**167**
Cumulative Risk (1)	**7.49E-08**	**8.20E-08**	**8.85E-08**	**1.22E-07**	**1.18E-07**	**6.19E-08**

Notes:

(1) Cumulative Risk calculation is indicated on Table 9.

Results are reported in parts per billion on a volume per volume basis (ppb[v/v]) for primary detected constituents, analyzed via United States Environmental Protection Agency Method TO-14.

< = Not detected above the reporting limit provided; NA = not analyzed.

Bold = Analyte detected above the laboratory reporting limit.

Air treatment system was discontinued on June 24, 1999. Air is now discharged directly to the atmosphere.

Table D-9
Summary of Air Dispersion Calculations
Wayne Reclamation & Recycling

Description / Sample Date	Input / Output	CONSTITUENTS									Cumulative Cancer Risk
		PCE *Carcinogen*	TCE *Carcinogen*	1,1-DCE *Non-Carcinogen*	cis-1,2-DCE *Non-Carcinogen*	trans-1,2-DCE *Non-Carcinogen*	VC *Carcinogen*	1,1,1-TCA *Non-Carcinogen*	1,1-DCA *Carcinogen*	Toluene *Non-Carcinogen*	
IN	(ppb[v/v])	46	860	17	2300	140	240	43	45	17	
6/24/1999	(g/s)	0.0003	0.0048	0.0001	0.0129	0.0008	0.0013	0.0002	0.0003	0.0001	
	Max.Conc.	0.001	0.023	0.000	0.060	0.004	0.006	0.001	0.001	0.000	
	ECR	7.14E-09	4.52E-08				5.55E-08		1.93E-11		1.08E-07
EFF	(ppb[v/v])	6	120	6	390	35	35	8	9	3	
6/24/1999	(g/s)	0.0000	0.0007	0.0000	0.0022	0.0002	0.0002	0.0000	0.0001	0.0000	
	Max.Conc.	0.000	0.003	0.000	0.010	0.001	0.001	0.000	0.000	0.000	
	ECR	9.31E-10	6.31E-09				8.10E-09		3.86E-12		1.53E-08
EFF	(ppb[v/v])	51	440	8	2200	100	340	180	45	8	
7/13/1999	(g/s)	0.0003	0.0025	0.0000	0.0123	0.0006	0.0019	0.0010	0.0003	0.0000	
	Max.Conc.	0.001	0.012	0.000	0.058	0.003	0.009	0.005	0.001	0.000	
	ECR	7.91E-09	2.31E-08				7.87E-08		1.93E-11		1.10E-07
EFF	(ppb[v/v])	27	810	45	9	140	270	44	45	9	
8/6/1999	(g/s)	0.0002	0.0045	0.0003	0.0001	0.0008	0.0015	0.0002	0.0003	0.0001	
	Max.Conc.	0.001	0.021	0.001	0.000	0.004	0.007	0.001	0.001	0.000	
	ECR	4.19E-09	4.26E-08				6.25E-08		1.93E-11		1.09E-07
EFF	(ppb[v/v])	25	390	4	1600	120	220	200	60	2	
9/1/1999	(g/s)	0.0001	0.0022	0.0000	0.0090	0.0007	0.0012	0.0011	0.0003	0.0000	
	Max.Conc.	0.001	0.010	0.000	0.042	0.003	0.006	0.005	0.002	0.000	
	ECR	3.88E-09	2.05E-08				5.09E-08		2.57E-11		7.53E-08
EFF	(ppb[v/v])	63	1700	9	3300	260	180	99	61	9	
10/14/1999	(g/s)	0.0004	0.0095	0.0001	0.0185	0.0015	0.0010	0.0006	0.0003	0.0001	
	Max.Conc.	0.002	0.045	0.000	0.087	0.007	0.005	0.003	0.002	0.000	
	ECR	9.78E-09	8.94E-08				4.17E-08		2.62E-11		1.41E-07
EFF	(ppb[v/v])	16	390	14	1400	76	200	97	32	14	
11/22/1999	(g/s)	0.0001	0.0022	0.0001	0.0078	0.0004	0.0011	0.0005	0.0002	0.0001	
	Max.Conc.	0.000	0.010	0.000	0.037	0.002	0.005	0.003	0.001	0.000	
	ECR	2.48E-09	2.05E-08				4.63E-08		1.37E-11		6.93E-08
EFF	(ppb[v/v])	38	520	14	1500	95	200	66	32	14	
12/13/1999	(g/s)	0.0002	0.0029	0.0001	0.0084	0.0005	0.0011	0.0004	0.0002	0.0001	
	Max.Conc.	0.001	0.014	0.000	0.039	0.002	0.005	0.002	0.001	0.000	
	ECR	5.90E-09	2.74E-08				4.63E-08		1.37E-11		7.96E-08
EFF	(ppb[v/v])	57	440	18	1100	68	94	110	29	18	
1/3/2000	(g/s)	0.0003	0.0025	0.0001	0.0062	0.0004	0.0005	0.0006	0.0002	0.0001	
	Max.Conc.	0.001	0.012	0.000	0.029	0.002	0.002	0.003	0.001	0.000	
	ECR	8.84E-09	2.31E-08				2.18E-08		1.24E-11		5.38E-08
EFF	(ppb[v/v])	8	220	8	740	55	91	29	17	8	
2/7/2000	(g/s)	0.0000	0.0012	0.0000	0.0041	0.0003	0.0005	0.0002	0.0001	0.0000	
	Max.Conc.	0.000	0.006	0.000	0.019	0.001	0.002	0.001	0.000	0.000	
	ECR	1.29E-09	1.16E-08				2.11E-08		7.29E-12		3.39E-08

Notes:

Detected constituent concentrations in parts per billion on a volume per volume basis (ppb[v/v]) from Table 13.

g/s = ppb[v/v] x 1,000 / (22,500 x 2.205 x 3,600).

ECR = Excess Cancer Risk = Maximum concentration (in $\mu g/m^3$) x Unit Risk Factor.

IN = Sample collected from air treatment system influent.

EFF = Sample collected from air treatment system effluent.

Max. Conc. = Maximum predicted concentration in micrograms per meter cubed ($\mu g/m^3$) from ISC-LT2 model run output.

Unit Risk Factors are:

Vinyl Chloride	--	8.80E-06
1,1-Dichloroethane	--	1.63E-08
Trichloroethene	--	2.00E-06
Tetrachloroethene	--	5.90E-06

Table D-9
Summary of Air Dispersion Calculations
Wayne Reclamation & Recycling

Description / Sample Date	Input / Output	CONSTITUENTS									Cumulative Cancer Risk
		PCE *Carcinogen*	**TCE** *Carcinogen*	**1,1-DCE** *Non-Carcinogen*	**cis-1,2-DCE** *Non-Carcinogen*	**trans-1,2-DCE** *Non-Carcinogen*	**VC** *Carcinogen*	**1,1,1-TCA** *Non-Carcinogen*	**1,1-DCA** *Carcinogen*	**Toluene** *Non-Carcinogen*	
EFF	(ppb[v/v])	88	400	9	1200	46	61	89	25	9	
3/15/2000	(g/s)	0.0005	0.0022	0.0001	0.0067	0.0003	0.0003	0.0005	0.0001	0.0001	
	Max.Conc.	0.002	0.011	0.000	0.032	0.001	0.002	0.002	0.001	0.000	
	ECR	1.37E-08	2.10E-08				1.41E-08		1.07E-11		4.88E-08
EFF	(ppb[v/v])	21	300	3	2300	83	260	47	31	3	
4/25/2000	(g/s)	0.0001	0.0017	0.0000	0.0129	0.0005	0.0015	0.0003	0.0002	0.0000	
	Max.Conc.	0.001	0.008	0.000	0.060	0.002	0.007	0.001	0.001	0.000	
	ECR	3.26E-09	1.58E-08				6.02E-08		1.33E-11		7.92E-08
EFF	(ppb[v/v])	110	440	12	1000	71	130	150	30	12	
5/24/2000	(g/s)	0.0006	0.0025	0.0001	0.0056	0.0004	0.0007	0.0008	0.0002	0.0001	
	Max.Conc.	0.003	0.012	0.000	0.026	0.002	0.003	0.004	0.001	0.000	
	ECR	1.71E-08	2.31E-08				3.01E-08		1.29E-11		7.03E-08
EFF	(ppb[v/v])	30	380	2	1800	85	190	110	27	2	
6/6/2000	(g/s)	0.0002	0.0021	0.0000	0.0101	0.0005	0.0011	0.0006	0.0002	0.0000	
	Max.Conc.	0.001	0.010	0.000	0.047	0.002	0.005	0.003	0.001	0.000	
	ECR	4.66E-09	2.00E-08				4.40E-08		1.16E-11		6.86E-08
EFF	(ppb[v/v])	31	290	10	1400	39	190	80	21	10	
7/25/2000	(g/s)	0.0002	0.0016	0.0001	0.0078	0.0002	0.0011	0.0004	0.0001	0.0001	
	Max.Conc.	0.001	0.008	0.000	0.037	0.001	0.005	0.002	0.001	0.000	
	ECR	4.81E-09	1.53E-08				4.40E-08		9.00E-12		6.40E-08
EFF	(ppb[v/v])	56	840	12	2200	100	230	59	30	12	
8/4/2000	(g/s)	0.0003	0.0047	0.0001	0.0123	0.0006	0.0013	0.0003	0.0002	0.0001	
	Max.Conc.	0.001	0.022	0.000	0.058	0.003	0.006	0.002	0.001	0.000	
	ECR	8.69E-09	4.42E-08				5.32E-08		1.29E-11		1.06E-07
EFF	(ppb[v/v])	22	540	12	2100	140	210	80	34	12	
9/5/2000	(g/s)	0.0001	0.0030	0.0001	0.0118	0.0008	0.0012	0.0004	0.0002	0.0001	
	Max.Conc.	0.001	0.014	0.000	0.055	0.004	0.006	0.002	0.001	0.000	
	ECR	3.41E-09	2.84E-08				4.86E-08		1.46E-11		8.04E-08
EFF	(ppb[v/v])	52	920	18	2200	160	130	93	49	18	
10/6/2000	(g/s)	0.0003	0.0052	0.0001	0.0123	0.0009	0.0007	0.0005	0.0003	0.0001	
	Max.Conc.	0.001	0.024	0.000	0.058	0.004	0.003	0.002	0.001	0.000	
	ECR	8.07E-09	4.84E-08				3.01E-08		2.10E-11		8.66E-08
EFF	(ppb[v/v])	110	840	10	1900	97	170	73	36	10	
11/7/2000	(g/s)	0.0006	0.0047	0.0001	0.0106	0.0005	0.0010	0.0004	0.0002	0.0001	
	Max.Conc.	0.003	0.022	0.000	0.050	0.003	0.004	0.002	0.001	0.000	
	ECR	1.71E-08	4.42E-08				3.93E-08		1.54E-11		1.01E-07
EFF	(ppb[v/v])	38	760	9	1900	100	190	50	30	9	
12/21/2000	(g/s)	0.0002	0.0043	0.0001	0.0106	0.0006	0.0011	0.0003	0.0002	0.0001	
	Max.Conc.	0.001	0.020	0.000	0.050	0.003	0.005	0.001	0.001	0.000	
	ECR	5.90E-09	4.00E-08				4.40E-08		1.29E-11		8.99E-08

Notes:

Detected constituent concentrations in parts per billion on a volume per volume basis (ppb[v/v]) from Table 13.
g/s = ppb[v/v] x 1,000 / (22,500 x 2.205 x 3,600).
ECR = Excess Cancer Risk = Maximum concentration (in $\mu g/m^3$) x Unit Risk Factor.
IN = Sample collected from air treatment system influent.
EFF = Sample collected from air treatment system effluent.

Max. Conc. = Maximum predicted concentration in micrograms per meter cubed ($\mu g/m^3$) from ISC-LT2 model run output.

Unit Risk Factors are:

Vinyl Chloride	--	8.80E-06
1,1-Dichloroethane	--	1.63E-08
Trichloroethene	--	2.00E-06
Tetrachloroethene	--	5.90E-06

Table D-9
Summary of Air Dispersion Calculations
Wayne Reclamation & Recycling

Description / Sample Date	Input / Output	CONSTITUENTS									Cumulative Cancer Risk
		PCE *Carcinogen*	**TCE** *Carcinogen*	**1,1-DCE** *Non-Carcinogen*	**cis-1,2-DCE** *Non-Carcinogen*	**trans-1,2-DCE** *Non-Carcinogen*	**VC** *Carcinogen*	**1,1,1-TCA** *Non-Carcinogen*	**1,1-DCA** *Carcinogen*	**Toluene** *Non-Carcinogen*	
EFF	(ppb[v/v])	38	630	9	2000	49	270	53	30	9	
1/30/2001	(g/s)	0.0002	0.0035	0.0001	0.0112	0.0003	0.0015	0.0003	0.0002	0.0001	
	Max.Conc.	0.001	0.017	0.000	0.053	0.001	0.007	0.001	0.001	0.000	
	ECR	5.90E-09	3.31E-08				6.25E-08		1.29E-11		1.02E-07
EFF	(ppb[v/v])	140	260	140	1700	1	180	140	140	140	
2/26/2001	(g/s)	0.0008	0.0015	0.0008	0.0095	0.0000	0.0010	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.007	0.004	0.045	0.000	0.005	0.004	0.004	0.004	
	ECR	2.17E-08	1.37E-08				4.17E-08		6.00E-11		7.71E-08
EFF	(ppb[v/v])	34	340	2	1300	1	190	26	18	4	
3/21/2001	(g/s)	0.0002	0.0019	0.0000	0.0073	0.0000	0.0011	0.0001	0.0001	0.0000	
	Max.Conc.	0.001	0.009	0.000	0.034	0.000	0.005	0.001	0.000	0.000	
	ECR	5.28E-09	1.79E-08				4.40E-08		7.72E-12		6.71E-08
EFF	(ppb[v/v])	140	160	140	1000	1	160	140	140	140	
4/23/2001	(g/s)	0.0008	0.0009	0.0008	0.0056	0.0000	0.0009	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.004	0.004	0.026	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	8.42E-09				3.70E-08		6.00E-11		6.72E-08
EFF	(ppb[v/v])	150	150	150	630	1	150	150	150	150	
5/21/2001	(g/s)	0.0008	0.0008	0.0008	0.0035	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.004	0.004	0.017	0.000	0.004	0.004	0.004	0.004	
	ECR	2.33E-08	7.89E-09				3.47E-08		6.43E-11		6.59E-08
EFF	(ppb[v/v])	150	430	150	1400	1	210	150	150	150	
6/13/2001	(g/s)	0.0008	0.0024	0.0008	0.0078	0.0000	0.0012	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.011	0.004	0.037	0.000	0.006	0.004	0.004	0.004	
	ECR	2.33E-08	2.26E-08				4.86E-08		6.43E-11		9.46E-08
EFF	(ppb[v/v])	140	140	140	1100	1	140	140	140	140	
7/23/2001	(g/s)	0.0008	0.0008	0.0008	0.0062	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.004	0.004	0.029	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	7.36E-09				3.24E-08		6.00E-11		6.16E-08
EFF	(ppb[v/v])	140	280	140	600	1	140	140	140	140	
8/23/2001	(g/s)	0.0008	0.0016	0.0008	0.0034	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.007	0.004	0.016	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	1.47E-08				3.24E-08		6.00E-11		6.89E-08
EFF	(ppb[v/v])	140	280	140	680	1	140	140	140	140	
9/17/2001	(g/s)	0.0008	0.0016	0.0008	0.0038	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.007	0.004	0.018	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	1.47E-08				3.24E-08		6.00E-11		6.89E-08
EFF	(ppb[v/v])	140	410	140	1500	140	260	140	140	140	
10/31/2001	(g/s)	0.0008	0.0023	0.0008	0.0084	0.0008	0.0015	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.011	0.004	0.039	0.004	0.007	0.004	0.004	0.004	
	ECR	2.17E-08	2.16E-08				6.02E-08		6.00E-11		1.04E-07
EFF	(ppb[v/v])	100	460	100	2200	100	210	100	100	100	
11/18/2001	(g/s)	0.0006	0.0026	0.0006	0.0123	0.0006	0.0012	0.0006	0.0006	0.0006	
	Max.Conc.	0.003	0.012	0.003	0.058	0.003	0.006	0.003	0.003	0.003	
	ECR	1.55E-08	2.42E-08				4.86E-08		4.29E-11		8.84E-08
EFF	(ppb[v/v])	130	300	130	1700	1	210	130	130	130	
12/28/2001	(g/s)	0.0007	0.0017	0.0007	0.0095	0.0000	0.0012	0.0007	0.0007	0.0007	
	Max.Conc.	0.003	0.008	0.003	0.045	0.000	0.006	0.003	0.003	0.003	
	ECR	2.02E-08	1.58E-08				4.86E-08		5.57E-11		8.46E-08

Notes:

Detected constituent concentrations in parts per billion on a volume per volume basis (ppb[v/v]) from Table 13.
g/s = ppb[v/v] x 1,000 / (22,500 x 2.205 x 3,600).
ECR = Excess Cancer Risk = Maximum concentration (in $\mu g/m^3$) x Unit Risk Factor.
IN = Sample collected from air treatment system influent.
EFF = Sample collected from air treatment system effluent.

Max. Conc. = Maximum predicted concentration in micrograms per meter cubed ($\mu g/m^3$) from ISC-LT2 model run output.

Unit Risk Factors are:

Vinyl Chloride	--	8.80E-06
1,1-Dichloroethane	--	1.63E-08
Trichloroethene	--	2.00E-06
Tetrachloroethene	--	5.90E-06

Table D-9
Summary of Air Dispersion Calculations
Wayne Reclamation & Recycling

Description / Sample Date	Input / Output	CONSTITUENTS									Cumulative Cancer Risk
		PCE *Carcinogen*	TCE *Carcinogen*	1,1-DCE *Non-Carcinogen*	cis-1,2-DCE *Non-Carcinogen*	trans-1,2-DCE *Non-Carcinogen*	VC *Carcinogen*	1,1,1-TCA *Non-Carcinogen*	1,1-DCA *Carcinogen*	Toluene *Non-Carcinogen*	
EFF	(ppb[v/v])	130	280	130	1600	1	280	130	130	130	
1/18/2002	(g/s)	0.0007	0.0016	0.0007	0.0090	0.0000	0.0016	0.0007	0.0007	0.0007	
	Max.Conc.	0.003	0.007	0.003	0.042	0.000	0.007	0.003	0.003	0.003	
	ECR	2.02E-08	1.47E-08				6.48E-08		5.57E-11		9.98E-08
EFF	(ppb[v/v])	130	530	130	2800	1	500	130	130	130	
2/7/2002	(g/s)	0.0007	0.0030	0.0007	0.0157	0.0000	0.0028	0.0007	0.0007	0.0007	
	Max.Conc.	0.003	0.014	0.003	0.074	0.000	0.013	0.003	0.003	0.003	
	ECR	2.02E-08	2.79E-08				1.16E-07		5.57E-11		1.64E-07
EFF	(ppb[v/v])	140	180	140	900	1	160	140	140	140	
3/21/2002	(g/s)	0.0008	0.0010	0.0008	0.0050	0.0000	0.0009	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.005	0.004	0.024	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	9.47E-09				3.70E-08		6.00E-11		6.83E-08
EFF	(ppb[v/v])	8	29	1	37	1	1	42	4	1	
4/23/2002	(g/s)	0.0000	0.0002	0.0000	0.0002	0.0000	0.0000	0.0002	0.0000	0.0000	
	Max.Conc.	0.000	0.001	0.000	0.001	0.000	0.000	0.001	0.000	0.000	
	ECR	1.21E-09	1.53E-09				2.31E-10		1.50E-12		2.97E-09
EFF	(ppb[v/v])	140	160	140	800	1	150	140	140	140	
5/23/2002	(g/s)	0.0008	0.0009	0.0008	0.0045	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.004	0.004	0.021	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	8.42E-09				3.47E-08		6.00E-11		6.49E-08
EFF	(ppb[v/v])	140	290	140	1200	1	220	140	140	140	
6/18/2002	(g/s)	0.0008	0.0016	0.0008	0.0067	0.0000	0.0012	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.008	0.004	0.032	0.000	0.006	0.004	0.004	0.004	
	ECR	2.17E-08	1.53E-08				5.09E-08		6.00E-11		8.80E-08
EFF	(ppb[v/v])	140	140	140	230	1	140	140	140	140	
7/19/2002	(g/s)	0.0008	0.0008	0.0008	0.0013	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.004	0.004	0.006	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	7.36E-09				3.24E-08		6.00E-11		6.16E-08
EFF	(ppb[v/v])	140	200	140	920	1	220	140	140	140	
8/14/2002	(g/s)	0.0008	0.0011	0.0008	0.0052	0.0000	0.0012	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.005	0.004	0.024	0.000	0.006	0.004	0.004	0.004	
	ECR	2.17E-08	1.05E-08				5.09E-08		6.00E-11		8.32E-08
EFF	(ppb[v/v])	100	520	100	1500	1	100	100	100	100	
9/20/2002	(g/s)	0.0006	0.0029	0.0006	0.0084	0.0000	0.0006	0.0006	0.0006	0.0006	
	Max.Conc.	0.003	0.014	0.003	0.039	0.000	0.003	0.003	0.003	0.003	
	ECR	1.55E-08	2.74E-08				2.31E-08		4.29E-11		6.61E-08
EFF	(ppb[v/v])	140	720	140	1300	1	140	140	140	140	
10/24/2002	(g/s)	0.0008	0.0040	0.0008	0.0073	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.019	0.004	0.034	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	3.79E-08				3.24E-08		6.00E-11		9.21E-08
EFF	(ppb[v/v])	140	720	140	1200	1	140	140	140	140	
11/21/2002	(g/s)	0.0008	0.0040	0.0008	0.0067	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.019	0.004	0.032	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	3.79E-08				3.24E-08		6.00E-11		9.21E-08
EFF	(ppb[v/v])	140	410	140	1100	1	140	140	140	140	
12/13/2002	(g/s)	0.0008	0.0023	0.0008	0.0062	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.011	0.004	0.029	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	2.16E-08				3.24E-08		6.00E-11		7.58E-08

Notes:

Detected constituent concentrations in parts per billion on a volume per volume basis (ppb[v/v]) from Table 13.
g/s = ppb[v/v] x 1,000 / (22,500 x 2.205 x 3,600).
ECR = Excess Cancer Risk = Maximum concentration (in $\mu g/m^3$) x Unit Risk Factor.
IN = Sample collected from air treatment system influent.
EFF = Sample collected from air treatment system effluent.

Max. Conc. = Maximum predicted concentration in micrograms per meter cubed ($\mu g/m^3$) from ISC-LT2 model run output.

Unit Risk Factors are:

Vinyl Chloride	--	8.80E-06
1,1-Dichloroethane	--	1.63E-08
Trichloroethene	--	2.00E-06
Tetrachloroethene	--	5.90E-06

Table D-9
Summary of Air Dispersion Calculations
Wayne Reclamation & Recycling

Description / Sample Date	Input / Output	CONSTITUENTS									Cumulative Cancer Risk
		PCE *Carcinogen*	TCE *Carcinogen*	1,1-DCE *Non-Carcinogen*	cis-1,2-DCE *Non-Carcinogen*	trans-1,2-DCE *Non-Carcinogen*	VC *Carcinogen*	1,1,1-TCA *Non-Carcinogen*	1,1-DCA *Carcinogen*	Toluene *Non-Carcinogen*	
EFF	(ppb[v/v])	140	420	140	920	1	140	140	140	140	
1/23/2003	(g/s)	0.0008	0.0024	0.0008	0.0052	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.011	0.004	0.024	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	2.21E-08				3.24E-08		6.00E-11		7.63E-08
EFF	(ppb[v/v])	140	320	140	520	1	140	140	140	140	
2/10/2003	(g/s)	0.0008	0.0018	0.0008	0.0029	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.008	0.004	0.014	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	1.68E-08				3.24E-08		6.00E-11		7.10E-08
EFF	(ppb[v/v])	130	320	130	760	1	130	130	130	130	
3/19/2003	(g/s)	0.0007	0.0018	0.0007	0.0043	0.0000	0.0007	0.0007	0.0007	0.0007	
	Max.Conc.	0.003	0.008	0.003	0.020	0.000	0.003	0.003	0.003	0.003	
	ECR	2.02E-08	1.68E-08				3.01E-08		5.57E-11		6.71E-08
EFF	(ppb[v/v])	140	380	140	1400	1	140	140	140	140	
4/15/2003	(g/s)	0.0008	0.0021	0.0008	0.0078	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.010	0.004	0.037	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	2.00E-08				3.24E-08		6.00E-11		7.42E-08
EFF	(ppb[v/v])	130	280	130	750	1	130	130	130	130	
5/19/2003	(g/s)	0.0007	0.0016	0.0007	0.0042	0.0000	0.0007	0.0007	0.0007	0.0007	
	Max.Conc.	0.003	0.007	0.003	0.020	0.000	0.003	0.003	0.003	0.003	
	ECR	2.02E-08	1.47E-08				3.01E-08		5.57E-11		6.50E-08
EFF	(ppb[v/v])	140	390	140	1000	1	140	140	140	140	
6/6/2003	(g/s)	0.0008	0.0022	0.0008	0.0056	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.010	0.004	0.026	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	2.05E-08				3.24E-08		6.00E-11		7.47E-08
EFF	(ppb[v/v])	140	290	140	740	1	140	140	140	140	
7/14/2003	(g/s)	0.0008	0.0016	0.0008	0.0041	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.008	0.004	0.019	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	1.53E-08				3.24E-08		6.00E-11		6.94E-08
EFF	(ppb[v/v])	140	330	140	800	1	140	140	140	140	
8/21/2003	(g/s)	0.0008	0.0018	0.0008	0.0045	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.009	0.004	0.021	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	1.74E-08				3.24E-08		6.00E-11		7.15E-08
EFF	(ppb[v/v])	7.4	240	0.66	270	1	11	5.4	2.3	0.66	
9/15/2003	(g/s)	0.0000	0.0013	0.0000	0.0015	0.0000	0.0001	0.0000	0.0000	0.0000	
	Max.Conc.	0.000	0.006	0.000	0.007	0.000	0.000	0.000	0.000	0.000	
	ECR	1.15E-09	1.26E-08				2.55E-09		9.86E-13		1.63E-08
EFF	(ppb[v/v])	130	230	130	750	1	130	130	130	130	
10/16/2003	(g/s)	0.0007	0.0013	0.0007	0.0042	0.0000	0.0007	0.0007	0.0007	0.0007	
	Max.Conc.	0.003	0.006	0.003	0.020	0.000	0.003	0.003	0.003	0.003	
	ECR	2.02E-08	1.21E-08				3.01E-08		5.57E-11		6.24E-08
EFF	(ppb[v/v])	130	230	130	380	1	130	130	130	130	
11/7/2003	(g/s)	0.0007	0.0013	0.0007	0.0021	0.0000	0.0007	0.0007	0.0007	0.0007	
	Max.Conc.	0.003	0.006	0.003	0.010	0.000	0.003	0.003	0.003	0.003	
	ECR	2.02E-08	1.21E-08				3.01E-08		5.57E-11		6.24E-08
EFF	(ppb[v/v])	130	220	130	1100	1	190	130	130	130	
12/22/2003	(g/s)	0.0007	0.0012	0.0007	0.0062	0.0000	0.0011	0.0007	0.0007	0.0007	
	Max.Conc.	0.003	0.006	0.003	0.029	0.000	0.005	0.003	0.003	0.003	
	ECR	2.02E-08	1.16E-08				4.40E-08		5.57E-11		7.58E-08

Notes:

Detected constituent concentrations in parts per billion on a volume per volume basis (ppb[v/v]) from Table 13.
g/s = ppb[v/v] x 1,000 / (22,500 x 2.205 x 3,600).
ECR = Excess Cancer Risk = Maximum concentration (in $\mu g/m^3$) x Unit Risk Factor.
IN = Sample collected from air treatment system influent.
EFF = Sample collected from air treatment system effluent.

Max. Conc. = Maximum predicted concentration in micrograms per meter cubed ($\mu g/m^3$) from ISC-LT2 model run output.

Unit Risk Factors are:

Vinyl Chloride	--	8.80E-06
1,1-Dichloroethane	--	1.63E-08
Trichloroethene	--	2.00E-06
Tetrachloroethene	--	5.90E-06

Table D-9
Summary of Air Dispersion Calculations
Wayne Reclamation & Recycling

Description / Sample Date	Input / Output	CONSTITUENTS									Cumulative Cancer Risk
		PCE *Carcinogen*	TCE *Carcinogen*	1,1-DCE *Non-Carcinogen*	cis-1,2-DCE *Non-Carcinogen*	trans-1,2-DCE *Non-Carcinogen*	VC *Carcinogen*	1,1,1-TCA *Non-Carcinogen*	1,1-DCA *Carcinogen*	Toluene *Non-Carcinogen*	
EFF	(ppb[v/v])	130	130	130	350	1	150	130	130	130	
1/29/2004	(g/s)	0.0007	0.0007	0.0007	0.0020	0.0000	0.0008	0.0007	0.0007	0.0007	
	Max.Conc.	0.003	0.003	0.003	0.009	0.000	0.004	0.003	0.003	0.003	
	ECR	2.02E-08	6.84E-09				3.47E-08		5.57E-11		6.18E-08
EFF	(ppb[v/v])	120	300	120	1200	1	220	120	120	120	
2/20/2004	(g/s)	0.0007	0.0017	0.0007	0.0067	0.0000	0.0012	0.0007	0.0007	0.0007	
	Max.Conc.	0.003	0.008	0.003	0.032	0.000	0.006	0.003	0.003	0.003	
	ECR	1.86E-08	1.58E-08				5.09E-08		5.14E-11		8.54E-08
EFF	(ppb[v/v])	140	140	140	540	1	140	140	140	140	
3/16/2004	(g/s)	0.0008	0.0008	0.0008	0.0030	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.004	0.004	0.014	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	7.36E-09				3.24E-08		6.00E-11		6.16E-08
EFF	(ppb[v/v])	7.1	480	3.1	2300	1	350	4.8	18	2.1	
4/19/2004	(g/s)	0.0000	0.0027	0.0000	0.0129	0.0000	0.0020	0.0000	0.0001	0.0000	
	Max.Conc.	0.000	0.013	0.000	0.060	0.000	0.009	0.000	0.000	0.000	
	ECR	1.10E-09	2.52E-08				8.10E-08		7.72E-12		1.07E-07
EFF	(ppb[v/v])	150	150	150	510	1	150	150	150	150	
5/18/2004	(g/s)	0.0008	0.0008	0.0008	0.0029	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.004	0.004	0.013	0.000	0.004	0.004	0.004	0.004	
	ECR	2.33E-08	7.89E-09				3.47E-08		6.43E-11		6.59E-08
EFF	(ppb[v/v])	12	260	5.0	1800	1	300	4.3	23	5.8	
6/23/2004	(g/s)	0.0001	0.0015	0.0000	0.0101	0.0000	0.0017	0.0000	0.0001	0.0000	
	Max.Conc.	0.000	0.007	0.000	0.047	0.000	0.008	0.000	0.001	0.000	
	ECR	1.86E-09	1.37E-08				6.94E-08		9.86E-12		8.50E-08
EFF	(ppb[v/v])	140	250	140	1300	1	260	140	140	140	
7/30/2004	(g/s)	0.0008	0.0014	0.0008	0.0073	0.0000	0.0015	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.007	0.004	0.034	0.000	0.007	0.004	0.004	0.004	
	ECR	2.17E-08	1.32E-08				6.02E-08		6.00E-11		9.51E-08
EFF	(ppb[v/v])	130	180	130	1000	1	140	130	130	130	
8/31/2004	(g/s)	0.0007	0.0010	0.0007	0.0056	0.0000	0.0008	0.0007	0.0007	0.0007	
	Max.Conc.	0.003	0.005	0.003	0.026	0.000	0.004	0.003	0.003	0.003	
	ECR	2.02E-08	9.47E-09				3.24E-08		5.57E-11		6.21E-08
EFF	(ppb[v/v])	140	140	140	620	1	140	140	140	140	
9/22/2004	(g/s)	0.0008	0.0008	0.0008	0.0035	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.004	0.004	0.016	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	7.36E-09				3.24E-08		6.00E-11		6.16E-08
EFF	(ppb[v/v])	150	180	150	820	1	180	150	150	150	
10/19/2004	(g/s)	0.0008	0.0010	0.0008	0.0046	0.0000	0.0010	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.005	0.004	0.022	0.000	0.005	0.004	0.004	0.004	
	ECR	2.33E-08	9.47E-09				4.17E-08		6.43E-11		7.45E-08
EFF	(ppb[v/v])	140	210	140	1000	1	170	140	140	140	
11/22/2004	(g/s)	0.0008	0.0012	0.0008	0.0056	0.0000	0.0010	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.006	0.004	0.026	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	1.10E-08				3.93E-08		6.00E-11		7.22E-08
EFF	(ppb[v/v])	140	780	140	1300	1	140	140	140	140	
12/17/2004	(g/s)	0.0008	0.0044	0.0008	0.0073	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.021	0.004	0.034	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	4.10E-08				3.24E-08		6.00E-11		9.52E-08

Notes:

Detected constituent concentrations in parts per billion on a volume per volume basis (ppb[v/v]) from Table 13.
g/s = ppb[v/v] x 1,000 / (22,500 x 2.205 x 3,600).
ECR = Excess Cancer Risk = Maximum concentration (in $\mu g/m^3$) x Unit Risk Factor.
IN = Sample collected from air treatment system influent.
EFF = Sample collected from air treatment system effluent.

Max. Conc. = Maximum predicted concentration in micrograms per meter cubed ($\mu g/m^3$) from ISC-LT2 model run output.

Unit Risk Factors are:

Vinyl Chloride	--	8.80E-06
1,1-Dichloroethane	--	1.63E-08
Trichloroethene	--	2.00E-06
Tetrachloroethene	--	5.90E-06

Table D-9
Summary of Air Dispersion Calculations
Wayne Reclamation & Recycling

Description / Sample Date	Input / Output	CONSTITUENTS									Cumulative Cancer Risk
		PCE *Carcinogen*	TCE *Carcinogen*	1,1-DCE *Non-Carcinogen*	cis-1,2-DCE *Non-Carcinogen*	trans-1,2-DCE *Non-Carcinogen*	VC *Carcinogen*	1,1,1-TCA *Non-Carcinogen*	1,1-DCA *Carcinogen*	Toluene *Non-Carcinogen*	
EFF	(ppb[v/v])	140	140	140	700	1	140	140	140	140	
1/26/2005	(g/s)	0.0008	0.0008	0.0008	0.0039	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.004	0.004	0.018	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	7.36E-09				3.24E-08		6.00E-11		6.16E-08
EFF	(ppb[v/v])	140	140	140	750	1	140	140	140	140	
2/18/2005	(g/s)	0.0008	0.0008	0.0008	0.0042	0.0000	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.004	0.004	0.020	0.000	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	7.36E-09				3.24E-08		6.00E-11		6.16E-08
EFF	(ppb[v/v])	140	140	140	620	170	180	140	140	140	
3/16/2005	(g/s)	0.0008	0.0008	0.0008	0.0035	0.0010	0.0010	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.004	0.004	0.016	0.004	0.005	0.004	0.004	0.004	
	ECR	2.17E-08	7.36E-09				4.17E-08		6.00E-11		7.08E-08
EFF	(ppb[v/v])	46.8	718	13.2	4330	14.1	13.8	15.6	53.2	13.2	
4/19/2005	(g/s)	0.0003	0.0040	0.0001	0.0242	0.0001	0.0001	0.0001	0.0003	0.0001	
	Max.Conc.	0.001	0.019	0.000	0.114	0.000	0.000	0.000	0.001	0.000	
	ECR	7.26E-09	3.78E-08				3.19E-09		2.28E-11		4.82E-08
EFF	(ppb[v/v])	15.1	34.7	3.4	0.71	1	0.74	0.64	15.9	0.71	
5/13/2005	(g/s)	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	
	Max.Conc.	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	ECR	2.34E-09	1.83E-09				1.71E-10		6.82E-12		4.35E-09
EFF	(ppb[v/v])	21.6	522	3	1970	113	274	18.2	22	1.5	
6/03/2005	(g/s)	0.0001	0.0029	0.0000	0.0110	0.0006	0.0015	0.0001	0.0001	0.0000	
	Max.Conc.	0.001	0.014	0.000	0.052	0.003	0.007	0.000	0.001	0.000	
	ECR	3.35E-09	2.75E-08				6.34E-08		9.43E-12		9.42E-08
EFF	(ppb[v/v])	140	250	140	920	140	140	140	140	140	
7/15/2005	(g/s)	0.0008	0.0014	0.0008	0.0052	0.0008	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.007	0.004	0.024	0.004	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	1.32E-08				2.87E-07		6.00E-11		3.22E-07
EFF	(ppb[v/v])	140	710	140	2400	140	530	140	140	140	
8/26/2005	(g/s)	0.0008	0.0040	0.0008	0.0134	0.0008	0.0030	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.019	0.004	0.063	0.004	0.014	0.004	0.004	0.004	
	ECR	2.17E-08	3.73E-08				1.09E-06		6.00E-11		**1.15E-06**
EFF	(ppb[v/v])	13.8	13.8	13.8	7160	185	13.8	16.40	56.2	13.8	
9/29/2005	(g/s)	0.0001	0.0001	0.0001	0.0401	0.0010	0.0001	0.0001	0.0003	0.0001	
	Max.Conc.	0.000	0.000	0.000	0.188	0.005	0.000	0.000	0.001	0.000	
	ECR	2.14E-09	7.26E-10				2.83E-08		2.41E-11		3.12E-08
EFF	(ppb[v/v])	140	300	140	1300	140	140	140	140	140	
10/17/2005	(g/s)	0.0008	0.0017	0.0008	0.0073	0.0008	0.0008	0.0008	0.0008	0.0008	
	Max.Conc.	0.004	0.008	0.004	0.034	0.004	0.004	0.004	0.004	0.004	
	ECR	2.17E-08	1.58E-08				2.87E-07		6.00E-11		3.25E-07
EFF	(ppb[v/v])	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	
11/03/2005	(g/s)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	Max.Conc.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	ECR	1.07E-10	3.63E-11				1.42E-09		2.96E-13		1.56E-09
EFF	(ppb[v/v])	14.8	224	14.8	1	19.4	344	14.8	22.5	14.8	
12/01/2005	(g/s)	0.0001	0.0013	0.0001	0.0000	0.0001	0.0019	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.006	0.000	0.000	0.001	0.009	0.000	0.001	0.000	
	ECR	2.30E-09	1.18E-08				7.06E-07		9.65E-12		7.20E-07

Notes:

Detected constituent concentrations in parts per billion on a volume per volume basis (ppb[v/vl]) from Table 13.
g/s = ppb[v/v] x 1,000 / (22,500 x 2.205 x 3,600).
ECR = Excess Cancer Risk = Maximum concentration (in $\mu g/m^3$) x Unit Risk Factor.
IN = Sample collected from air treatment system influent.
EFF = Sample collected from air treatment system effluent.
Bold = Cumulative Cancer Risk above action level.

Max. Conc. = Maximum predicted concentration in micrograms per meter cubed ($\mu g/m^3$) from ISC-LT2 model run output.

Unit Risk Factors are:

Vinyl Chloride	--	8.80E-06
1,1-Dichloroethane	--	1.63E-08
Trichloroethene	--	2.00E-06
Tetrachloroethene	--	5.90E-06

Table D-9
Summary of Air Dispersion Calculations
Wayne Reclamation & Recycling

Description / Sample Date	Input / Output	CONSTITUENTS									Cumulative Cancer Risk
		PCE *Carcinogen*	TCE *Carcinogen*	1,1-DCE *Non-Carcinogen*	cis-1,2-DCE *Non-Carcinogen*	trans-1,2-DCE *Non-Carcinogen*	VC *Carcinogen*	1,1,1-TCA *Non-Carcinogen*	1,1-DCA *Carcinogen*	Toluene *Non-Carcinogen*	
EFF	(ppb[v/v])	14	315	14	2330	23	423	14	26	14	
1/09/2006	(g/s)	0.0001	0.0018	0.0001	0.0130	0.0001	0.0024	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.008	0.000	0.061	0.001	0.011	0.000	0.001	0.000	
	ECR	2.22E-09	1.66E-08				9.79E-08		1.11E-11		1.17E-07
EFF	(ppb[v/v])	3.4	283	4.7	1930	19.9	310	3.4	21.4	3.4	
2/10/2006	(g/s)	0.0000	0.0016	0.0000	0.0108	0.0001	0.0017	0.0000	0.0001	0.0000	
	Max.Conc.	0.000	0.007	0.000	0.051	0.001	0.008	0.000	0.001	0.000	
	ECR	5.28E-10	1.49E-08				7.17E-08		9.17E-12		8.72E-08
EFF	(ppb[v/v])	13.8	270	13.8	2650	18	215.00	13.8	21.5	13.8	
3/15/2006	(g/s)	0.0001	0.0015	0.0001	0.0148	0.0001	0.0012	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.007	0.000	0.070	0.000	0.006	0.000	0.001	0.000	
	ECR	2.14E-09	1.42E-08				4.98E-08		9.22E-12		6.61E-08
EFF	(ppb[v/v])	34.7	279	13.8	818	38	147	18.0	13.8	18.0	
4/26/2006	(g/s)	0.0002	0.0016	0.0001	0.0046	0.0002	0.0008	0.0001	0.0001	0.0001	
	Max.Conc.	0.001	0.007	0.000	0.022	0.001	0.004	0.000	0.000	0.000	
	ECR	5.38E-09	1.47E-08				3.40E-08		5.92E-12		5.41E-08
EFF	(ppb[v/v])	11.8	421	11.8	1800	123	317	11.8	23.30	11.8	
5/23/2006	(g/s)	0.0001	0.0024	0.0001	0.0101	0.0007	0.0018	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.011	0.000	0.047	0.003	0.008	0.000	0.001	0.000	
	ECR	1.83E-09	2.21E-08				7.34E-08		9.99E-12		9.74E-08
EFF	(ppb[v/v])	22.4	313	13.8	1160	48.6	168	28.4	13.8	13.8	
6/25/2006	(g/s)	0.0001	0.0018	0.0001	0.0065	0.0003	0.0009	0.0002	0.0001	0.0001	
	Max.Conc.	0.001	0.008	0.000	0.031	0.001	0.004	0.001	0.000	0.000	
	ECR	3.48E-09	1.65E-08				3.89E-08		5.92E-12		5.88E-08
EFF	(ppb[v/v])	52	378	14	1550	59	319	15	31	14	
7/18/2006	(g/s)	0.0003	0.0021	0.0001	0.0087	0.0003	0.0018	0.0001	0.0002	0.0001	
	Max.Conc.	0.001	0.010	0.000	0.041	0.002	0.008	0.000	0.001	0.000	
	ECR	8.13E-09	1.99E-08				7.38E-08		1.32E-11		1.02E-07
EFF	(ppb[v/v])	13.8	14	13.8	14	13.8	14	13.8	13.8	35.7	
8/10/2006	(g/s)	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	
	Max.Conc.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	
	ECR	2.14E-09	7.26E-10				3.19E-09		5.92E-12		6.07E-09
EFF	(ppb[v/v])	14.3	427	14.3	1720	93	14.30	14.3	33.6	14.3	
9/26/2006	(g/s)	0.0001	0.0024	0.0001	0.0096	0.0005	0.0001	0.0001	0.0002	0.0001	
	Max.Conc.	0.000	0.011	0.000	0.045	0.002	0.000	0.000	0.001	0.000	
	ECR	2.22E-09	2.25E-08				3.31E-09		1.44E-11		2.80E-08
EFF	(ppb[v/v])	93.7	888	19.8	2050	146	220	31.3	39.2	19.8	
10/20/2006	(g/s)	0.0005	0.0050	0.0001	0.0115	0.0008	0.0012	0.0002	0.0002	0.0001	
	Max.Conc.	0.002	0.023	0.001	0.054	0.004	0.006	0.001	0.001	0.001	
	ECR	1.45E-08	4.67E-08				5.09E-08		1.68E-11		1.12E-07
EFF	(ppb[v/v])	16.6	242	14.3	1420	49	230	14.3	20.90	14.3	
11/27/2006	(g/s)	0.0001	0.0014	0.0001	0.0080	0.0003	0.0013	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.006	0.000	0.037	0.001	0.006	0.000	0.001	0.000	
	ECR	2.58E-09	1.27E-08				5.32E-08		8.96E-12		6.85E-08
EFF	(ppb[v/v])	13.8	191	13.8	927	17.0	199	13.8	14.0	13.8	
12/11/2006	(g/s)	0.0001	0.0011	0.0001	0.0052	0.0001	0.0011	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.005	0.000	0.024	0.000	0.005	0.000	0.000	0.000	
	ECR	2.14E-09	1.00E-08				4.61E-08		6.00E-12		5.83E-08

Notes:

Detected constituent concentrations in parts per billion on a volume per volume basis (ppb[v/v]) from Table 13.
g/s = ppb[v/v] x 1,000 / (22,500 x 2.205 x 3,600).
ECR = Excess Cancer Risk = Maximum concentration (in $\mu g/m^3$) x Unit Risk Factor.
IN = Sample collected from air treatment system influent.
EFF = Sample collected from air treatment system effluent.
Bold = Cumulative Cancer Risk above action level.

Max. Conc. = Maximum predicted concentration in micrograms per meter cubed ($\mu g/m^3$) from ISC-LT2 model run output.

Unit Risk Factors are:

Vinyl Chloride	--	8.80E-06
1,1-Dichloroethane	--	1.63E-08
Trichloroethene	--	2.00E-06
Tetrachloroethene	--	5.90E-06

Table D-9
Summary of Air Dispersion Calculations
Wayne Reclamation & Recycling

Description / Sample Date	Input / Output	CONSTITUENTS									Cumulative Cancer Risk
		PCE *Carcinogen*	**TCE** *Carcinogen*	**1,1-DCE** *Non-Carcinogen*	**cis-1,2-DCE** *Non-Carcinogen*	**trans-1,2-DCE** *Non-Carcinogen*	**VC** *Carcinogen*	**1,1,1-TCA** *Non-Carcinogen*	**1,1-DCA** *Carcinogen*	**Toluene** *Non-Carcinogen*	
EFF	(ppb[v/v])	14	162	14	1010	20	197	14	23	14	
1/04/2007	(g/s)	0.0001	0.0009	0.0001	0.0057	0.0001	0.0011	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.004	0.000	0.027	0.001	0.005	0.000	0.001	0.000	
	ECR	2.22E-09	8.52E-09				4.56E-08		9.86E-12		5.63E-08
EFF	(ppb[v/v])	14	141	14	891	14	246	14	14	14	
2/02/2007	(g/s)	0.0001	0.0008	0.0001	0.0050	0.0001	0.0014	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.004	0.000	0.023	0.000	0.006	0.000	0.000	0.000	
	ECR	2.22E-09	7.42E-09				5.69E-08		6.13E-12		6.66E-08
EFF	(ppb[v/v])	14	196	14	1150	16	285	14	15	14	
3/13/2007	(g/s)	0.0001	0.0011	0.0001	0.0064	0.0001	0.0016	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.005	0.000	0.030	0.000	0.007	0.000	0.000	0.000	
	ECR	2.14E-09	1.03E-08				6.60E-08		6.43E-12		7.84E-08
EFF	(ppb[v/v])	14	217	14	1330	26	334	14	17	14	
4/17/2007	(g/s)	0.0001	0.0012	0.0001	0.0074	0.0001	0.0019	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.006	0.000	0.035	0.001	0.009	0.000	0.000	0.000	
	ECR	2.14E-09	1.14E-08				7.73E-08		7.29E-12		9.09E-08
EFF	(ppb[v/v])	14	419	14	1980	34	602	14	23	14	
5/07/2007	(g/s)	0.0001	0.0023	0.0001	0.0111	0.0002	0.0034	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.011	0.000	0.052	0.001	0.016	0.000	0.001	0.000	
	ECR	2.22E-09	2.20E-08				1.39E-07		9.86E-12		1.64E-07
EFF	(ppb[v/v])	14	464	14	1010	28	487	14	26	14	
6/06/2007	(g/s)	0.0001	0.0026	0.0001	0.0057	0.0002	0.0027	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.012	0.000	0.027	0.001	0.013	0.000	0.001	0.000	
	ECR	2.22E-09	2.44E-08				1.13E-07		1.11E-11		1.39E-07
EFF	(ppb[v/v])	20	642	14	2710	35	533	14	35	14	
7/16/2007	(g/s)	0.0001	0.0036	0.0001	0.0152	0.0002	0.0030	0.0001	0.0002	0.0001	
	Max.Conc.	0.001	0.017	0.000	0.071	0.001	0.014	0.000	0.001	0.000	
	ECR	3.10E-09	3.38E-08				1.23E-07		1.49E-11		1.60E-07
EFF	(ppb[v/v])	23	641	14	2020	38	411	14	42	14	
8/06/2007	(g/s)	0.0001	0.0036	0.0001	0.0113	0.0002	0.0023	0.0001	0.0002	0.0001	
	Max.Conc.	0.001	0.017	0.000	0.053	0.001	0.011	0.000	0.001	0.000	
	ECR	3.57E-09	3.37E-08				9.51E-08		1.78E-11		1.32E-07
EFF	(ppb[v/v])	16	512	14	2200	33	454	14	35	14	
9/06/2007	(g/s)	0.0001	0.0029	0.0001	0.0123	0.0002	0.0025	0.0001	0.0002	0.0001	
	Max.Conc.	0.000	0.013	0.000	0.058	0.001	0.012	0.000	0.001	0.000	
	ECR	2.54E-09	2.69E-08				1.05E-07		1.50E-11		1.35E-07
EFF	(ppb[v/v])	18	277	15	694	15	174	15	15	15	
10/18/2007	(g/s)	0.0001	0.0016	0.0001	0.0039	0.0001	0.0010	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.007	0.000	0.018	0.000	0.005	0.000	0.000	0.000	
	ECR	2.73E-09	1.46E-08				4.03E-08		6.34E-12		5.76E-08
EFF	(ppb[v/v])	14	217	14	815	16	203	14	14	14	
11/05/2007	(g/s)	0.0001	0.0012	0.0001	0.0046	0.0001	0.0011	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.006	0.000	0.021	0.000	0.005	0.000	0.000	0.000	
	ECR	2.17E-09	1.14E-08				4.70E-08		6.00E-12		6.06E-08
EFF	(ppb[v/v])	14	191	14	866	14	176	14	14	14	
12/12/2007	(g/s)	0.0001	0.0011	0.0001	0.0048	0.0001	0.0010	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.005	0.000	0.023	0.000	0.005	0.000	0.000	0.000	
	ECR	2.17E-09	1.00E-08				4.07E-08		6.00E-12		5.30E-08

Notes:

Detected constituent concentrations in parts per billion on a volume per volume basis (ppb[v/v]) from Table 13.
g/s = ppb[v/v] x 1,000 / (22,500 x 2.205 x 3,600).
ECR = Excess Cancer Risk = Maximum concentration (in $\mu g/m^3$) x Unit Risk Factor.
IN = Sample collected from air treatment system influent.
EFF = Sample collected from air treatment system effluent.
Bold = Cumulative Cancer Risk above action level.

Max. Conc. = Maximum predicted concentration in micrograms per meter cubed ($\mu g/m^3$) from ISC-LT2 model run output.

Unit Risk Factors are:

Vinyl Chloride	--	8.80E-06
1,1-Dichloroethane	--	1.63E-08
Trichloroethene	--	2.00E-06
Tetrachloroethene	--	5.90E-06

Table D-9
Summary of Air Dispersion Calculations
Wayne Reclamation & Recycling

Description / Sample Date	Input / Output	CONSTITUENTS									Cumulative Cancer Risk
		PCE *Carcinogen*	**TCE** *Carcinogen*	**1,1-DCE** *Non-Carcinogen*	**cis-1,2-DCE** *Non-Carcinogen*	**trans-1,2-DCE** *Non-Carcinogen*	**VC** *Carcinogen*	**1,1,1-TCA** *Non-Carcinogen*	**1,1-DCA** *Carcinogen*	**Toluene** *Non-Carcinogen*	
EFF	(ppb[v/v])	14	226	14	1090	14	206	14	14	14	
1/04/2008	(g/s)	0.0001	0.0013	0.0001	0.0061	0.0001	0.0012	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.006	0.000	0.029	0.000	0.005	0.000	0.000	0.000	
	ECR	2.14E-09	1.19E-08				4.77E-08		5.92E-12		6.17E-08
EFF	(ppb[v/v])	14	233	14	979	20	14	14	14	14	
2/12/2008	(g/s)	0.0001	0.0013	0.0001	0.0055	0.0001	0.0001	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.006	0.000	0.026	0.001	0.000	0.000	0.000	0.000	
	ECR	2.14E-09	1.23E-08				3.19E-09		5.92E-12		1.76E-08
EFF	(ppb[v/v])	13	304	13	1210	17	216	13	16	13	
3/13/2008	(g/s)	0.0001	0.0017	0.0001	0.0068	0.0001	0.0012	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.008	0.000	0.032	0.000	0.006	0.000	0.000	0.000	
	ECR	2.08E-09	1.60E-08				5.00E-08		6.86E-12		6.81E-08
EFF	(ppb[v/v])	14	45	14	463	14	145	14	14	14	
4/14/2008	(g/s)	0.0001	0.0003	0.0001	0.0026	0.0001	0.0008	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.001	0.000	0.012	0.000	0.004	0.000	0.000	0.000	
	ECR	2.22E-09	2.37E-09				3.36E-08		6.13E-12		3.82E-08
EFF	(ppb[v/v])	14	323	14	1370	22	14	14	21	14	
5/08/2008	(g/s)	0.0001	0.0018	0.0001	0.0077	0.0001	0.0001	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.008	0.000	0.036	0.001	0.000	0.000	0.001	0.000	
	ECR	2.14E-09	1.70E-08				3.19E-09		9.00E-12		2.23E-08
EFF	(ppb[v/v])	14	328	14	1460	23	272	14	19	14	
6/03/2008	(g/s)	0.0001	0.0018	0.0001	0.0082	0.0001	0.0015	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.009	0.000	0.038	0.001	0.007	0.000	0.000	0.000	
	ECR	2.22E-09	1.73E-08				6.30E-08		8.15E-12		8.24E-08
EFF	(ppb[v/v])	229	679	229	2810	14	763	229	229	14	
7/09/2008	(g/s)	0.0013	0.0038	0.0013	0.0157	0.0001	0.0043	0.0013	0.0013	0.0001	
	Max.Conc.	0.006	0.018	0.006	0.074	0.000	0.020	0.006	0.006	0.000	
	ECR	3.55E-08	3.57E-08				1.77E-07		9.82E-11		2.48E-07
EFF	(ppb[v/v])	18	372	14	1490	20	389	14	25	14	
8/11/2008	(g/s)	0.0001	0.0021	0.0001	0.0083	0.0001	0.0022	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.010	0.000	0.039	0.001	0.010	0.000	0.001	0.000	
	ECR	2.79E-09	1.96E-08				9.00E-08		1.07E-11		1.12E-07
EFF	(ppb[v/v])	14	321	14	1910	17	404	14	26	13	
9/20/2008	(g/s)	0.0001	0.0018	0.0001	0.0107	0.0001	0.0023	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.008	0.000	0.050	0.000	0.011	0.000	0.001	0.000	
	ECR	2.17E-09	1.69E-08				9.35E-08		1.11E-11		1.13E-07
EFF	(ppb[v/v])	14	330	14	5010	14	497	14	28	14	
10/17/2008	(g/s)	0.0001	0.0018	0.0001	0.0281	0.0001	0.0028	0.0001	0.0002	0.0001	
	Max.Conc.	0.000	0.009	0.000	0.132	0.000	0.013	0.000	0.001	0.000	
	ECR	2.17E-09	1.74E-08				1.15E-07		1.20E-11		1.35E-07
EFF	(ppb[v/v])	221	828	221	3680	22	759	221	221	14	
11/24/2008	(g/s)	0.0012	0.0046	0.0012	0.0206	0.0001	0.0042	0.0012	0.0012	0.0001	
	Max.Conc.	0.006	0.022	0.006	0.097	0.001	0.020	0.006	0.006	0.000	
	ECR	3.43E-08	4.36E-08				1.76E-07		9.47E-11		2.54E-07
EFF	(ppb[v/v])	182	335	13	1700	23	401	13	32	14	
12/10/2008	(g/s)	0.0010	0.0019	0.0001	0.0095	0.0001	0.0022	0.0001	0.0002	0.0001	
	Max.Conc.	0.005	0.009	0.000	0.045	0.001	0.011	0.000	0.001	0.000	
	ECR	2.82E-08	1.76E-08				9.28E-08		1.37E-11		1.39E-07

Notes:

Detected constituent concentrations in parts per billion on a volume per volume basis (ppb[v/v]) from Table 13.
g/s = ppb[v/v] x 1,000 / (22,500 x 2.205 x 3,600).
ECR = Excess Cancer Risk = Maximum concentration (in $\mu g/m^3$) x Unit Risk Factor.
IN = Sample collected from air treatment system influent.
EFF = Sample collected from air treatment system effluent.
Bold = Cumulative Cancer Risk above action level.

Max. Conc. = Maximum predicted concentration in micrograms per meter cubed ($\mu g/m^3$) from ISC-LT2 model run output.

Unit Risk Factors are:

Vinyl Chloride	--	8.80E-06
1,1-Dichloroethane	--	1.63E-08
Trichloroethene	--	2.00E-06
Tetrachloroethene	--	5.90E-06

Table D-9
Summary of Air Dispersion Calculations
Wayne Reclamation & Recycling

Description / Sample Date	Input / Output	CONSTITUENTS									Cumulative Cancer Risk
		PCE *Carcinogen*	**TCE** *Carcinogen*	**1,1-DCE** *Non-Carcinogen*	**cis-1,2-DCE** *Non-Carcinogen*	**trans-1,2-DCE** *Non-Carcinogen*	**VC** *Carcinogen*	**1,1,1-TCA** *Non-Carcinogen*	**1,1-DCA** *Carcinogen*	**Toluene** *Non-Carcinogen*	
EFF	(ppb[v/v])	13	367	13	2340	23	390	13	22	13	
1/23/2009	(g/s)	0.0001	0.0021	0.0001	0.0131	0.0001	0.0022	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.010	0.000	0.062	0.001	0.010	0.000	0.001	0.000	
	ECR	2.02E-09	1.93E-08				9.03E-08		9.43E-12		1.12E-07
EFF	(ppb[v/v])	14	185	14	1060	23	298	14	14	14	
2/09/2009	(g/s)	0.0001	0.0010	0.0001	0.0059	0.0001	0.0017	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.005	0.000	0.028	0.001	0.008	0.000	0.000	0.000	
	ECR	2.17E-09	9.73E-09				6.90E-08		6.00E-12		8.09E-08
EFF	(ppb[v/v])	14	288	14	1350	22	295	14	21	14	
3/30/2009	(g/s)	0.0001	0.0016	0.0001	0.0076	0.0001	0.0017	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.008	0.000	0.036	0.001	0.008	0.000	0.001	0.000	
	ECR	2.17E-09	1.51E-08				6.83E-08		9.00E-12		8.56E-08
EFF	(ppb[v/v])	13	155	13	868	16	223	13	13	13	
4/20/2009	(g/s)	0.0001	0.0009	0.0001	0.0049	0.0001	0.0012	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.004	0.000	0.023	0.000	0.006	0.000	0.000	0.000	
	ECR	2.02E-09	8.15E-09				5.16E-08		5.57E-12		6.18E-08
EFF	(ppb[v/v])	14	192	14	1230	16	230	14	12	14	
5/13/2009	(g/s)	0.0001	0.0011	0.0001	0.0069	0.0001	0.0013	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.005	0.000	0.032	0.000	0.006	0.000	0.000	0.000	
	ECR	2.17E-09	1.01E-08				5.32E-08		5.14E-12		6.55E-08
EFF	(ppb[v/v])	14	201	14	898	14	221	14	14	14	
6/10/2009	(g/s)	0.0001	0.0011	0.0001	0.0050	0.0001	0.0012	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.005	0.000	0.024	0.000	0.006	0.000	0.000	0.000	
	ECR	2.17E-09	1.06E-08				5.11E-08		6.00E-12		6.39E-08
EFF	(ppb[v/v])	10	323	3	1290	16	302	3	13	1	
7/09/2009	(g/s)	0.0001	0.0018	0.0000	0.0072	0.0001	0.0017	0.0000	0.0001	0.0000	
	Max.Conc.	0.000	0.008	0.000	0.034	0.000	0.008	0.000	0.000	0.000	
	ECR	1.47E-09	1.70E-08				6.99E-08		5.62E-12		8.84E-08
EFF	(ppb[v/v])	14	116	14	495	14	136	14	14	16	
8/25/2009	(g/s)	0.0001	0.0006	0.0001	0.0028	0.0001	0.0008	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.003	0.000	0.013	0.000	0.004	0.000	0.000	0.000	
	ECR	2.17E-09	6.10E-09				3.15E-08		6.00E-12		3.98E-08
EFF	(ppb[v/v])	13	158	1	401	1	107	4	6	7	
9/25/2009	(g/s)	0.0001	0.0009	0.0000	0.0022	0.0000	0.0006	0.0000	0.0000	0.0000	
	Max.Conc.	0.000	0.004	0.000	0.011	0.000	0.003	0.000	0.000	0.000	
	ECR	2.02E-09	8.31E-09				2.48E-08		2.36E-12		3.51E-08
EFF	(ppb[v/v])	13	237	2	903	12	167	4	12	5	
10/15/2009	(g/s)	0.0001	0.0013	0.0000	0.0051	0.0001	0.0009	0.0000	0.0001	0.0000	
	Max.Conc.	0.000	0.006	0.000	0.024	0.000	0.004	0.000	0.000	0.000	
	ECR	2.02E-09	1.25E-08				3.87E-08		5.23E-12		5.31E-08
EFF	(ppb[v/v])	14	108	14	412	14	83	14	14	14	
11/13/2009	(g/s)	0.0001	0.0006	0.0001	0.0023	0.0001	0.0005	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.003	0.000	0.011	0.000	0.002	0.000	0.000	0.000	
	ECR	2.17E-09	5.68E-09				1.92E-08		6.00E-12		2.71E-08
EFF	(ppb[v/v])	15	201	15	912	15	199	15	16	15	
12/15/2009	(g/s)	0.0001	0.0011	0.0001	0.0051	0.0001	0.0011	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.005	0.000	0.024	0.000	0.005	0.000	0.000	0.000	
	ECR	2.33E-09	1.06E-08				4.61E-08		6.86E-12		5.90E-08

Notes:

Detected constituent concentrations in parts per billion on a volume per volume basis (ppb[v/v]) from Table 13.
g/s = ppb[v/v] x 1,000 / (22,500 x 2.205 x 3,600).
ECR = Excess Cancer Risk = Maximum concentration (in $\mu g/m^3$) x Unit Risk Factor.
IN = Sample collected from air treatment system influent.
EFF = Sample collected from air treatment system effluent.
Bold = Cumulative Cancer Risk above action level.

Max. Conc. = Maximum predicted concentration in micrograms per meter cubed ($\mu g/m^3$) from ISC-LT2 model run output.

Unit Risk Factors are:

Vinyl Chloride	--	8.80E-06
1,1-Dichloroethane	--	1.63E-08
Trichloroethene	--	2.00E-06
Tetrachloroethene	--	5.90E-06

Table D-9
Summary of Air Dispersion Calculations
Wayne Reclamation & Recycling

Description / Sample Date	Input / Output	CONSTITUENTS									Cumulative Cancer Risk
		PCE *Carcinogen*	**TCE** *Carcinogen*	**1,1-DCE** *Non-Carcinogen*	**cis-1,2-DCE** *Non-Carcinogen*	**trans-1,2-DCE** *Non-Carcinogen*	**VC** *Carcinogen*	**1,1,1-TCA** *Non-Carcinogen*	**1,1-DCA** *Carcinogen*	**Toluene** *Non-Carcinogen*	
EFF	(ppb[v/v])	14	145	14	1060	14	281	14	14		
1/25/2010	(g/s)	0.0001	0.0008	0.0001	0.0059	0.0001	0.0016	0.0001	0.0001	0.0000	
	Max.Conc.	0.000	0.004	0.000	0.028	0.000	0.007	0.000	0.000	0.000	
	ECR	2.22E-09	7.63E-09				6.50E-08		6.13E-12		7.49E-08
EFF	(ppb[v/v])	14	246	14	4680	18	289	14	19		
2/17/2010	(g/s)	0.0001	0.0014	0.0001	0.0262	0.0001	0.0016	0.0001	0.0001	0.0000	
	Max.Conc.	0.000	0.006	0.000	0.123	0.000	0.008	0.000	0.000	0.000	
	ECR	2.14E-09	1.29E-08				6.69E-08		8.15E-12		8.20E-08
EFF	(ppb[v/v])	79	300	58	1550	58	261	79	59		
3/09/2010	(g/s)	0.0004	0.0017	0.0003	0.0087	0.0003	0.0015	0.0004	0.0003	0.0000	
	Max.Conc.	0.002	0.008	0.002	0.041	0.002	0.007	0.002	0.002	0.000	
	ECR	1.23E-08	1.58E-08				6.04E-08		2.53E-11		8.85E-08
EFF	(ppb[v/v])	13	639	13	2510	34	373	13	24		
4/16/2010	(g/s)	0.0001	0.0036	0.0001	0.0141	0.0002	0.0021	0.0001	0.0001	0.0000	
	Max.Conc.	0.000	0.017	0.000	0.066	0.001	0.010	0.000	0.001	0.000	
	ECR	2.08E-09	3.36E-08				8.63E-08		1.03E-11		1.22E-07
EFF	(ppb[v/v])	14	1020	14	2690	26	267	14	16		
5/10/2010	(g/s)	0.0001	0.0057	0.0001	0.0151	0.0001	0.0015	0.0001	0.0001	0.0000	
	Max.Conc.	0.000	0.027	0.000	0.071	0.001	0.007	0.000	0.000	0.000	
	ECR	2.14E-09	5.37E-08				6.18E-08		6.86E-12		1.18E-07
EFF	(ppb[v/v])		401	14	893	21	167	14	14	14	
6/25/2010	(g/s)	0.0000	0.0022	0.0001	0.0050	0.0001	0.0009	0.0001	0.0001	0.0001	
	Max.Conc.	0.000	0.011	0.000	0.023	0.001	0.004	0.000	0.000	0.000	
	ECR	0.00E+00	2.11E-08				3.87E-08		6.00E-12		5.98E-08

Notes:

Detected constituent concentrations in parts per billion on a volume per volume basis (ppb[v/v]).

g/s = ppb[v/v] x 1,000 / (22,500 x 2.205 x 3,600).

ECR = Excess Cancer Risk = Maximum concentration (in $\mu g/m^3$) x Unit Risk Factor.

IN = Sample collected from air treatment system influent.

EFF = Sample collected from air treatment system effluent.

Bold = Cumulative Cancer Risk above action level.

Max. Conc. = Maximum predicted concentration in micrograms per meter cubed ($\mu g/m^3$) from ISC-LT2 model run output.

Unit Risk Factors are:

Vinyl Chloride	--	8.80E-06
1,1-Dichloroethane	--	1.63E-08
Trichloroethene	--	2.00E-06
Tetrachloroethene	--	5.90E-06

APPENDIX E

SUMMARY OF AIR DISPERSION MODELING
AND
CUMULATIVE CANCER RISK CALCULATIONS

APPENDIX E

SUMMARY OF AIR DISPERSION MODELING AND CUMULATIVE CANCER RISK CALCULATIONS

Wayne Reclamation & Recycling

The following summarizes the air modeling conducted by MWH Americas, Inc. for the Wayne Reclamation & Recycling (WRR) site in Columbia City, Indiana to assess the maximum annual average ground-level concentration (GLC) that could occur at any point outside the perimeter of the WRR site. Descriptions of the model, modeling procedures, and the results are provided below.

AIR DISPERSION MODELING PROCEDURES

The modeling was performed by utilizing the United States Environmental Protection Agency (U.S. EPA) model Industrial Source Complex – Long-Term (ISC-LT) to evaluate the ambient air impact of emissions from the site. Dispersion modeling was conducted on both the air treatment system influent and effluent in order to compare the risks associated with both treated and untreated air.

Meteorological Data

Meteorological data from 1985 was entered into the model for the Columbia City, Indiana region. Model output is highly sensitive to such data, as changes in atmospheric conditions will directly affect the ability of a discharged pollutant to disperse in the surrounding air. Meteorological data such as wind speed, wind direction, urban and rural mixing heights, Pasquill Stability Classifications (rated A to G, with G being the most stable), and ambient air temperature were converted into a binary data package. The package was then loaded into the ISC-LT model. The model then evaluated these conditions with the remaining model input parameters to identify which combinations of these conditions would result in maximum GLC of pollutants.

Emissions Source Data

The following data represents the emissions parameters at the WRR site that were entered into the model:

Stack Height	9.1 meters

Stack Diameter	0.4064 meters
Stack Base Elevation	6.1 meters
Exhaust Temperature	73° C
Gas Exit Velocity	13.08 meters per second
Volumetric Flow Rate	1.7 cubic meters per second
Influent/Effluent Concentrations	Sampling events (See ***Table 14***, Progress Rpt. 3. Current data are provided in ***Table 9*** of this report.)
Terrain	Flat
Dispersion Coefficients	Rural
Final Plume Rise	On
Stack-tip Downwash	On
Receptor Height	0 meters

Modeling Procedure

A grid was established to describe the relationship of the emission source with its surroundings, including the location of the site boundaries and any potential receptors. A Cartesian grid was established around the site to determine GLC locations.

HUMAN HEALTH RISK ASSESSMENT

The maximum concentrations determined by the air modeling study were multiplied by unit risk factors (URFs) to obtain the excess carcinogenic risk posed by the emissions through the inhalation route. The URFs used in this study were developed from toxicity values included in U.S. EPA's Integrated Risk Information System (IRIS), U.S. EPA's "Health Assessment Summary Tables" (HEAST, Annual FY-1995), and information provided by the U.S. EPA Environmental Criteria Assessment Office. The URFs assume a chronic exposure to the carcinogenic chemicals for 24 hours a day, 365 days a year, for 70 years. The URFs for the constituents of concern are:

Vinyl chloride -	8.80E-06
1,1-Dichloroethane -	1.63E-08
Trichloroethene -	2.00E-06
Tetrachloroethene -	5.90E-06

The excess cancer risk (ECR) to the maximally exposed individual can be calculated by multiplying the URF by the ambient concentration of the chemical in question. In a

residential zone, the maximally-exposed individual is assumed to be continuously exposed to the chemical for 70 years.

The maximum individual excess cancer risk (MICR) to the maximally-exposed individual due to air toxic emissions from the WRR site was calculated by multiplying the appropriate risk factor (URF) by the maximum annual GLC at the maximally-exposed individual:

MICR = URF * GLC

A summary of these calculations using concentrations generated from the model output is provided in Table 14 of Progress Report 3, and current calculations are provided in ***Table 9*** of this progress report.

On June 24, 1999, air treatment was discontinued; however, monthly air sampling continues to be conducted on the effluent air stream as a means of monitoring potential risk levels associated with the untreated air stream. Effluent air sampling conducted since discontinuation of air treatment indicates the 1x10-6 action level has not been exceeded, with one minor exception of August 2005 (exceeded by 0.05x10-6). This was due to a slight increase in the vinyl chloride concentration noted in the system effluent air stream during that month's sampling.

\\Usdet1s01\J:\01_INDUSTRIAL-OTHER\3868-Wayne RR\6-Reports\SAPR 30\04 - Appendices\Appendix E - air risk calcs 30.doc